

INTRODUCTION

In 1979, the Fairfield Soil and Water Conservation District (SWCD), in cooperation with the USDA, Soil Conservation Service (SCS) took part in the National Resources Inventory (NRI). Information was collected on over 200 sample units in the county to provide county reliable resources data.

This inventory provided natural resource data on (1) land use, (2) conservation treatment needs, (3) prime farmland, (4) potential cropland, (5) sheet and rill erosion, (6) floodprone areas, (7) wetlands, and (8) small bodies of water.

The study identifies erosion and land management problems in Fairfield County. These problems were addressed and priorities set in the District's long-range program. Top priorities include: (1) working to prevent soil erosion and control pollution from sediment and stormwater runoff, (2) actively participating in land-use decisions in the county, and (3) expanding conservation education and information activities.

The purpose of this publication is to distribute the results of the Fairfield County Resources Inventory and to provide land users with a management guide for solving problems on the various soils in the county.

A primary objective of the Fairfield SWCD is to promote the wise use of the soil resource base in Fairfield County.

The information in this publication, like all information developed from a statistical study, has varying degrees of reliability or confidence levels. All values expressed here, representing over 10 percent of the county area, have a confidence level greater than 90 percent or they are at least 90 percent accurate. Smaller values, those representing less than 10 percent of the total county area, will be less than 90 percent accurate.

November 1984

RESOURCE ASSESSMENT OF FAIRFIELD COUNTY

Agriculture is very important in Fairfield County. According to the 1982 Agriculture Statistics, Fairfield County had 1,280 farms occupying 238,000 acres. This comprised 73.6 percent of the county.

Much of this agricultural land is used as cropland. According to the census data, Fairfield County's corn crop was approximately 90,300 acres; soybeans were approximately 30,800 acres; wheat was 17,800 acres; oats were 1,900 acres, and meadow was 13,600 acres.

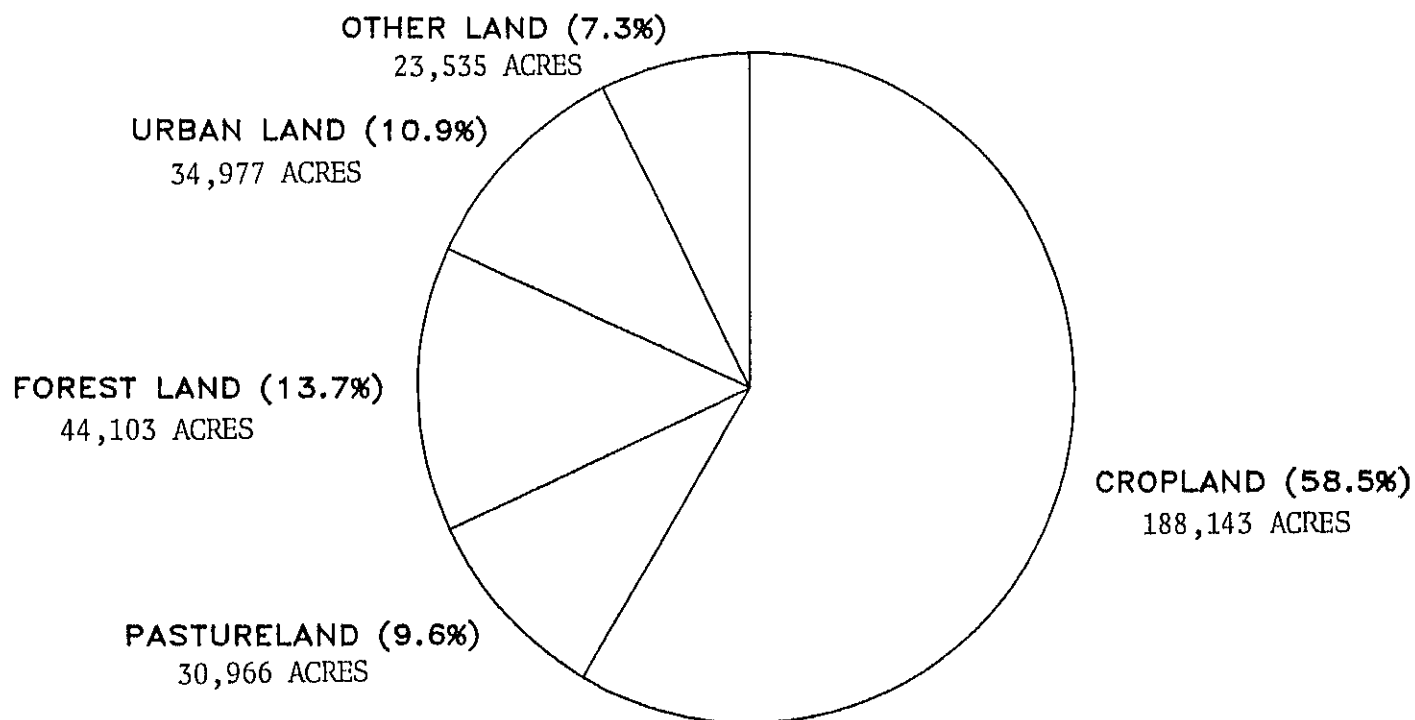
Livestock is still an important aspect of agriculture in Fairfield County. In 1982 there were 34,900 cattle and calves and 32,500 pigs and hogs.

Residential and commercial expansion is rapidly taking place in the northwest area of the county where Columbus suburbs are expanding. This urban expansion is continually removing land from the agricultural resource base in Fairfield County.

Watershed projects are important to Fairfield County. Several million dollars of PL-566 funds and local money have been spent for construction of nearly 50 water control dams and 12 miles of channel improvement. Additional watershed work is underway and more is planned for the future.

Control of erosion in the watershed areas is extremely important in keeping sediment from shortening the intended life of the projects.

Figure 1.1 Fairfield County Land Use on Nonfederal Land



TOTAL NONFEDERAL ACREAGE IN FAIRFIELD COUNTY = 321,724 ACRES

KEY POINT:

- o Over 188,000 acres or 58 percent of the county is cropland.

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = PARKE SILT LOAM
R = 150

K = .37

SLOPE = C
L = 200

6 to 12
S = 9.0

Soil Symbol MtD1
T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-SB	NO TILL	5.52	102.06	34.07	33.76
C-SB	NO TILL	7.37	100.60	32.23	32.30
C-SB-SB	NO TILL	12.89	99.14	26.70	30.84
SB-SB-SB	NO TILL	18.41	96.22	21.18	27.92
SB-SB-SB	CHISEL DISC	31.31	88.86	8.29	20.56
C-SB-SB	CHISEL DISC	23.94	87.07	15.65	18.77
C-SB	CHISEL DISC	20.26	86.18	19.34	17.88
C-C-SB	CHISEL DISC	15.65	85.29	23.94	16.99
C-SB-C-SB-WX	NO TILL	6.45	83.75	33.15	15.45
C-C-C	CHISEL DISC	11.05	83.50	28.54	15.20
C-C-C-M-M-M	CHISEL DISC	6.45	79.91	33.15	11.61
C-C-M-M-M	CHISEL DISC	5.52	79.19	34.07	10.89
C-C-SB-W-M-M	CHISEL DISC	10.13	73.13	29.46	4.83
C-C-M-M-M	FALL PLOW	9.21	72.70	30.38	4.40
C-C-M-M-M	SPRING PLOW	7.37	72.70	32.23	4.40
C-SB-C-SB-WX	CHISEL DISC	12.89	72.21	26.70	3.91
C-C-C-M-M-M	FALL PLOW	13.81	71.79	25.78	3.49
C-C-C-M-M-M	SPRING PLOW	11.97	71.79	27.62	3.49
SB-SB-SB	FALL PLOW	41.43	69.34	-1.84	1.04
SB-SB-SB	SPRING PLOW	37.75	69.34	1.84	1.04
C-SB-SB	FALL PLOW	40.51	68.65	-.92	.35
C-SB-SB	SPRING PLOW	35.91	68.65	3.68	.35
*C-SB	FALL PLOW	39.59	68.30	0.00	0.00
C-SB	SPRING PLOW	34.99	68.30	4.60	0.00
C-C-SB	FALL PLOW	38.67	67.95	.92	-.35
C-C-SB	SPRING PLOW	34.07	67.95	5.52	-.35
C-C-C	FALL PLOW	36.83	67.26	2.76	-1.04
C-C-C	SPRING PLOW	33.15	67.26	6.45	-1.04
C-C-SB-W-M-M	FALL PLOW	15.65	64.46	23.94	-3.84
C-C-SB-W-M-M	SPRING PLOW	12.89	64.46	26.70	-3.84
C-SB-WX	CHISEL DISC	15.65	62.90	23.94	-5.40
C-SB-C-SB-WX	FALL PLOW	31.31	57.91	8.29	-10.39
C-SB-C-SB-WX	SPRING PLOW	27.62	57.91	11.97	-10.39
C-SB-WX	FALL PLOW	24.86	50.98	14.73	-17.32
C-SB-WX	SPRING PLOW	21.18	50.98	18.41	-17.32
UNDER T					

C-C	NO TILL	2.76	104.98	36.83	36.68
C-C-M-M-M	NO TILL	2.39	90.65	37.20	22.35
C-M-M-M	NO TILL	2.12	87.78	37.47	19.48
C-SB-W-M-M	NO TILL	2.76	81.51	36.83	13.22
C-SB-WX	NO TILL	3.68	72.52	35.91	4.22

Pastureland

Approximately 10 percent of the land area in Fairfield County is used for pasture. Pasture plants commonly grown are red clover, alfalfa, bluegrass, ladino clover, orchardgrass, tall fescue, timothy and brome grass.

The ability of a pasture to produce forage and protect the soil from erosion is influenced by the soil type, plant species, the number of livestock, the length of time they graze, and fertility. Forage stands must contain adequate quantities of adapted species. Practices that contribute to good pasture management are rotation of pastures, deferred grazing, grazing in proper season to reduce compaction, weed control, fencing, brush management, and application of appropriate amounts of lime and fertilizer. Strategically located water supplies are also essential to proper pasture management.

The most widespread problem causing erosion on pastures in the county is overgrazing. Overgrazing usually occurs during July and August when the cool season grasses become dormant. Overgrazing not only causes additional erosion, but also reduces the stand of the more productive forage species. Overgrazing can be prevented by adjusting the number of livestock to the production potential of the pasture. This can be accomplished by using supplemental grazing, reducing the number of livestock, or increasing the productivity of the present pasture.

Erosion control is a major need because many of the soils used for pasture are steep and subject to erosion. Control of erosion is particularly important during seeding. Erosion can be effectively controlled at seeding time by the use of tillage operations that leave residue on the surface. No-till seedings with chemical weed control is a practice that can minimize soil erosion.

The need for lime and fertilizer should be determined by soil tests and amounts should be supplied to meet the desired production level of the forage to be grown.

With the application of good management practices forage yields can be increased. This will also increase carrying capacity and potential income from pastureland in the county.

Soil Erosion

Soil erosion is a continuously occurring natural process that loosens and transports soil particles. Erosion occurs slowly on undisturbed woodland and areas with adequate permanent vegetative cover. Soil losses are quite high on sloping cropland that is continuously cultivated and left unprotected during several months every year.

Most of the erosion occurring on agricultural land is on cropland. Over 1,150,000 tons of erosion occurs on Fairfield County cropland every year.

Table 1.3 Nonfederal Cropland Acres and Annual Erosion by Capability Class and Subclass

CLASS AND SUBCLASS	ACRES	TONS	TONS/ACRE
I	4,223	11,865	2.81
IIe	76,477	483,547	6.32
IIs	470	2,190	4.66
IIw	62,871	121,726	1.94
IIIe	22,522	374,468	16.63
IIIw	13,605	36,609	2.69
IVe	6,099	118,018	19.35
VIe	1,876	8,499	4.53
TOTAL	88,143	1,156,922	6.15

KEY POINTS:

- o Severe erosion is occurring on Class IIIe soils.
- o Subclass "e" soils comprise 57 percent of the cropland acres and 85 percent of the cropland erosion.

Soil can tolerate small amounts of erosion and remain productive for agriculture indefinitely. When erosion is above this tolerable limit, the soil resource base cannot be maintained and the future ability of the soil to produce crops is threatened. This tolerable limit ("T" factor) ranges from three to five tons per acre per year for the soils in Fairfield County. The tolerable soil loss (T) for most Fairfield County soils is four tons per acre per year.

There are 76,479 acres of cropland in the county with erosion rates exceeding the "T" factor. This represents a serious threat to the productive capacity of the soil resource base. Most the cropland acres eroding at rates higher than "T" are in capability Classes IIe, IIs, IIIe, and IIIw.

Table 1.4 Soil Loss over "T" on Fairfield County Cropland by Capability Class on Nonfederal Land

CAPABILITY CLASS	ACRES OVER "T"	PERCENT OVER "T"
I	469	11
IIe	40,818	53
IIs	470	100
IIw	9,386	15
IIIe	17,360	77
IIIw	1,408	10
IVe	5,161	85
VIe	1,407	75
TOTAL	76,479	41

KEY POINTS:

- o Forty-one percent of the total cropland or 77,417 acres are eroding at rates in excess of "T".
- o Sixty-one percent or 64,746 acres of all subclass "e" soils on cropland are eroding at rates greater than "T".

Conservation Treatment

Most of the land in Fairfield County needs some type of conservation treatment. Subsurface (tile) drainage is needed on 79,290 acres of cropland, and 94,308 cropland acres need erosion control. Some cropland needs both drainage and erosion control. Some areas of the county have inadequate outlets available for efficient drainage systems.

Proper management is also needed on pastureland and forest land. Over 22,992 acres of pastureland need brush control, grazing control, and improvement. Over 29,555 acres of forest are grazed, inadequately stocked, or are in need of timber stand improvement.

Converting pastureland and woodland to other land uses without proper management will increase the erosion hazard.

Table 1.5 Conservation Treatment Needs on Nonfederal Land

LAND USE	TOTAL ACRES	TOTAL ACRES	% TOTAL ACRES
		NEEDING TREATMENT	NEEDING TREATMENT
Cropland	188,143	174,536	93
Pastureland	30,966	22,992	74
Forest land	44,103	29,555	67
Other Land	23,535	9,658	41
TOTAL	286,747	236,741	83

SUMMARY

Agriculture accounts for 74 percent of Fairfield County land use. Sixty-four percent of Fairfield County's rural land is classified as prime farmland.

Almost three-fifths of Fairfield County is cropland. Almost one out of every two acres of Fairfield County cropland is losing soil at a rate which will reduce the productivity of that cropland.

Nearly half of the cropland needs drainage improvement. Many of the major drainage outlets need to be upgraded.

TECHNICAL APPENDIX

Soil Management Alternatives and Comparative Net Return Tables

TECHNICAL APPENDIX
Soil Management Alternatives and
Comparative Net Return Tables

This Technical Appendix was developed as a management tool to assist the farm operator and the professional soil conservationist in determining the best resource management system for any given crop field. By using this material, the operator and soil conservationist can determine ways to minimize soil loss and the net return changes that can be expected. Since this information is based on sample data and averages for existing conditions, it may not fit all situations exactly, but it can be of great value in making comparative analysis of alternative systems. While there is no replacement for good management and sound judgment, any analytical data available to the decisionmaker is a valuable tool. Table 2.1 lists all of the major soils in the county with erosion problems. It displays the map symbol, soil series name, surface texture, slope, capability class and subclass, and the acreage. The total acres of the soils in the county are also shown.

Table 2.1 Fairfield County Soils With Erosion Problems

SYMBOL	SERIES NAME	SURFACE TEXTURE	SLOPE %	CAPABILITY CLASS	ACRES
AaB1	Alexandria	Silt loam	2-6	IIe	18,369*
AaC1	Alexandria	Silt loam	6-12	IIIe	22,208*
AaD2	Alexandria	Silt loam	12-18	IVe	5,200*
BaA0	Bennington	Silt loam	0-2	IIw	25,204
BaB1	Bennington	Silt loam	2-6	IIe	11,928*
CaB1	Cardington	Silt loam	2-6	IIe	47,478*
CaC1	Cardington	Silt loam	6-12	IIIe	3,124*
ChB1	Celina	Silt loam	2-6	IIe	3,857*
CoA0	Crosby	Silt loam	0-2	IIw	1,696
CoB2	Crosby	Silt loam	2-6	IIe	633
FeA1	Fox	Silt loam	0-2	IIs	1,214
FeB1	Fox	Silt loam	2-6	IIe	5,651*
FeC2	Fox	Silt loam	6-12	IIIe	3,045
FcA1	Fox	Gravelly loam	0-2	IIs	230
FcB1	Fox	Gravelly loam	2-6	IIe	421*
FdA1	Fox	Loam	0-2	IIs	315
FdB1	Fox	Loam	2-6	IIe	673*
FdD2	Fox	Loam	12-18	IVe	1,148
HaB1	Hanover	Silt loam	2-6	IIe	2,980
KcB1	Kendallville	Silt loam	2-6	IIe	1,092*
KcC2	Kendallville	Silt loam	6-12	IIIe	278
LcC1	Loudonville	Silt loam	6-12	IIIe	1,647*
LcD1	Loudonville	Silt loam	12-18	IVe	2,380*
MgA1	McGary & Fitchville	Silt loams	0-2	IIIw	4,339
MmB1	Miami	Silt loam	2-6	IIe	2,939*
MmC2	Miami	Silt loam	6-12	IIIe	874
MmD2	Miami	Silt loam	12-18	IVe	65
MuD1	Muskingum	Silt loam	12-18	IVe	2,327*
MtD1	Muskingum	Sandy loam	12-18	IVe	2,190*
PaC1	Parke	Silt loam	6-12	IIIe	686*
TOTAL					174,191

*Acreage contains both slightly eroded and moderately eroded soils.

The following tables were prepared using data from the NRI, the Universal Soil Loss Equation (USLE), Crop Budgets, and Ohio crop yield data. A detailed study was compiled for each of the 30 listed soil series. Soil losses for different rotations and tillage systems were compared with the net return a farmer could expect from these management systems. These figures are based on average management levels and do not consider land costs. The comparisons were made for 10 crop rotations using different tillage systems.

These tables can be used by following the steps listed below:

1. Determine the soil type with the aid of the Fairfield Soil Survey. Locate this map unit with the appropriate column in one of the 23 tables.

2. The USLE uses a series of factors to predict soil loss. These factors are located near the top of the tables and are:

R = Rainfall factor

K = Soil erodibility

L = Average length of slope for the listed soil

S = Average percent slope for the listed soil

T = Tolerable soil loss

3. Locate the crop rotation and tillage methods used in the first two columns:

C = Corn

SB = Soybeans

M = Hay (alfalfa)

W = Wheat

X = Cover Crop

4. The predicted soil loss is located in the third column. If the soil loss is above the tolerable level, the value will be located in the over "T" section. If the soil loss is within the tolerable limits, the value will be in the under "T" section. The soil losses were computed with the average map unit factors displayed at the top of the table.
5. The fourth column gives the expected average annual net return per acre, excluding land cost, that a farmer would receive with average management levels and yield data.

6. The fifth column shows the predicted amount of soil saved per acre in tons per acre per year compared to the management alternative of corn, soybeans fall plowed.
7. The sixth column is the predicted change in net return compared to the management alternative of corn, soybeans.

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = ALEXANDRIA SILT LOAM SLOPE = B 2 to 6 Soil Symbol AaB1
R = 150 K = .37 L = 210 S = 3.6 T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
C-SB	CHISEL DISC	5.86	80.52	5.59	20.05
C-C-C	FALL PLOW	10.66	78.98	.80	18.51
C-C-C	SPRING PLOW	9.59	78.98	1.86	18.51
C-SB-SB	CHISEL DISC	6.93	72.69	4.53	12.22
C-C-SB	FALL PLOW	11.19	66.64	.27	6.17
C-C-SB	SPRING PLOW	9.86	66.64	1.60	6.17
SB-SB-SB	NO TILL	5.33	64.39	6.13	3.92
*C-SB	FALL PLOW	11.46	60.48	0.00	0.00
C-SB	SPRING PLOW	10.12	60.48	1.33	0.00
SB-SB-SB	CHISEL DISC	9.06	57.03	2.40	- 3.45
C-C-SB	FALL PLOW	11.72	54.31	-.27	- 6.17
C-SB-SB	SPRING PLOW	10.39	54.31	1.07	- 6.17
C-SB-C-SB-WX	FALL PLOW	9.06	51.21	2.40	- 9.27
C-SB-C-SB-WX	SPRING PLOW	7.99	51.21	3.46	- 9.27
C-SB-WX	FALL PLOW	7.19	45.03	4.26	-15.45
C-SB-WX	SPRING PLOW	6.13	45.03	5.33	-15.45
SB-SB-SB	FALL PLOW	11.99	41.97	-.53	-18.51
SB-SB-SB	SPRING PLOW	10.92	41.97	.53	-18.51
UNDER T					
C-C-C	NO TILL	.80	132.34	10.66	71.87
C-C-SB	NO TILL	1.60	109.69	9.86	49.22
C-C-C	CHISEL DISC	3.20	104.01	8.26	43.54
C-SB	NO TILL	2.13	98.37	9.32	37.89
C-C-C-M-M-M	NO TILL	.69	90.16	10.76	29.69
C-C-SB	CHISEL DISC	4.53	88.35	6.93	27.88
C-SB-SB	NO TILL	3.73	87.04	7.73	26.57
C-C-M-M-M	NO TILL	.61	81.73	10.84	21.26
C-SB-C-SB-WX	NO TILL	1.86	81.52	9.59	21.04
C-C-C-M-M-M	CHISEL DISC	1.86	76.00	9.59	15.53
C-C-SB-W-M-M	NO TILL	.80	75.52	10.66	15.04
C-C-M-M-M	CHISEL DISC	1.60	70.40	9.86	9.92
C-SB-WX	NO TILL	1.07	70.29	10.39	9.81
C-SB-C-SB-WX	CHISEL DISC	3.73	67.24	7.73	6.77
C-C-SB-W-M-M	CHISEL DISC	2.93	64.85	8.52	4.37
C-C-C-M-M-M	FALL PLOW	4.00	63.49	7.46	3.01
C-C-C-M-M-M	SPRING PLOW	3.46	63.49	7.99	3.01
C-C-M-M-M	FALL PLOW	2.66	60.39	8.79	- .09
C-C-M-M-M	SPRING PLOW	2.13	60.39	9.32	- .09
C-SB-WX	CHISEL DISC	4.53	58.39	6.93	- 2.09
C-C-SB-W-M-M	FALL PLOW	4.53	53.99	6.93	- 6.48
C-C-SB-W-M-M	SPRING PLOW	3.73	53.99	7.73	- 6.48

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = ALEXANDRIA SILT LOAM

R = 150

K = .37

SLOPE = C

L = 186

6 to 12

S = 8.0

Soil Symbol AaC1

T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-C	CHISEL DISC	9.00	72.25	23.26	44.65
C-SB	NO TILL	6.00	71.79	26.26	44.19
C-SB-SB	NO TILL	10.51	63.17	21.76	35.57
C-C-SB	CHISEL DISC	12.76	61.02	19.51	33.42
C-SB-C-SB-WX	NO TILL	5.25	57.60	27.01	30.00
C-SB	CHISEL DISC	16.51	55.41	15.76	27.81
C-C-C-M-M-M	CHISEL DISC	5.25	54.46	27.01	26.86
C-C-C	FALL PLOW	30.01	50.15	2.25	22.55
C-C-C	SPRING PLOW	27.01	50.15	5.25	22.55
C-SB-SB	CHISEL DISC	19.51	49.80	12.76	22.20
SB-SB-SB	NO TILL	15.01	45.93	17.26	18.33
C-C-SB-W-M-M	CHISEL DISC	8.25	45.19	24.01	17.59
C-SB-C-SB-WX	CHISEL DISC	10.51	44.50	21.76	16.90
C-C-C-M-M-M	FALL PLOW	11.26	43.41	21.01	15.81
C-C-C-M-M-M	SPRING PLOW	9.75	43.41	22.51	15.81
C-C-M-M-M	FALL PLOW	7.50	42.06	24.76	14.46
C-C-M-M-M	SPRING PLOW	6.00	42.06	26.26	14.46
C-C-SB	SPRING PLOW	27.76	41.27	4.50	13.67
SB-SB-SB	CHISEL DISC	25.51	38.57	6.75	10.97
C-SB-WX	CHISEL DISC	12.76	37.22	19.51	9.62
C-SB	SPRING PLOW	28.51	36.83	3.75	9.23
C-C-SB-W-M-M	SPRING PLOW	10.51	35.32	21.76	7.72
C-C-SB	FALL PLOW	31.52	35.12	.75	7.52
C-SB-SB	SPRING PLOW	29.26	32.39	3.00	4.79
C-C-SB-W-M-M	FALL PLOW	12.76	32.24	19.51	4.64
C-SB-C-SB-WX	SPRING PLOW	22.51	29.63	9.75	2.03
*C-SB	FALL PLOW	32.27	27.60	0.00	0.00
C-SB-WX	SPRING PLOW	17.26	24.84	-2.76	-.18
SB-SB-SB	SPRING PLOW	30.76	23.51	1.50	- 4.09
C-SB-C-SB-WX	FALL PLOW	25.51	22.25	6.75	- 5.35
C-SB-SB	FALL PLOW	33.02	20.08	-.75	- 7.52
C-SB-WX	FALL PLOW	20.26	18.68	12.01	- 8.92
SB-SB-SB	FALL PLOW	33.77	5.05	-1.50	-22.55
UNDER T					

C-C-C	NO TILL	2.25	97.65	30.01	70.05
C-C-SB	NO TILL	4.50	80.41	27.76	52.81
C-C-C-M-M-M	NO TILL	1.95	67.16	30.31	39.56
C-C-M-M-M	NO TILL	1.73	61.06	30.54	33.46
C-C-SB-W-M-M	NO TILL	2.25	54.89	30.01	27.29
C-C-M-M-M	CHISEL DISC	4.50	50.90	27.76	23.30
C-SB-WX	NO TILL	3.00	48.14	29.26	20.54

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = ALEXANDRIA SILT LOAM
R = 150 K = .37

SLOPE = D
L = 147

12 to 18
S = 15.0

Soil Symbol AaD2
T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-C	NO TILL	5.17	79.08	68.89	54.41
C-C-SB	NO TILL	10.33	68.03	63.72	43.36
C-SB	NO TILL	13.78	62.51	60.28	37.84
C-C-C	CHISEL DISC	20.67	59.06	53.39	34.39
C-SB-SB	NO TILL	24.11	56.98	49.94	32.31
C-C-SB	CHISEL DISC	29.28	52.23	44.78	27.56
C-SB	CHISEL DISC	37.89	48.82	36.17	24.15
C-SB-C-SB-WX	NO TILL	12.06	48.40	62.00	23.73
SB-SB-SB	NO TILL	34.44	45.93	39.61	21.26
C-SB-SB	CHISEL DISC	44.78	45.40	29.28	20.73
C-C-SB-W-M-M	NO TILL	5.17	45.33	68.89	20.66
C-C-C-M-M-M	CHISEL DISC	12.06	45.03	62.00	20.36
C-C-C	FALL PLOW	68.89	44.29	5.17	19.62
C-C-C	SPRING PLOW	62.00	44.29	12.06	19.62
C-C-M-M-M	CHISEL DISC	10.33	42.22	63.72	17.55
C-SB-WX	NO TILL	6.89	39.00	67.16	14.33
SB-SB-SB	CHISEL DISC	58.55	38.57	15.50	13.90
C-C-C-M-M-M	FALL PLOW	25.83	37.64	48.22	12.97
C-C-C-M-M-M	SPRING PLOW	22.39	37.64	51.66	12.97
C-SB-C-SB-WX	CHISEL DISC	24.11	37.45	49.94	12.78
C-C-SB-W-M-M	CHISEL DISC	18.94	37.43	55.11	12.76
C-C-SB	SPRING PLOW	63.72	37.36	10.33	12.69
C-C-M-M-M	FALL PLOW	17.22	36.31	56.83	11.64
C-C-M-M-M	SPRING PLOW	13.78	36.31	60.28	11.64
C-SB	SPRING PLOW	65.44	33.90	8.61	9.23
C-C-SB	FALL PLOW	72.33	31.21	1.72	6.54
C-SB-SB	SPRING PLOW	67.16	30.44	6.89	5.77
C-C-SB-W-M-M	SPRING PLOW	24.11	30.00	49.94	5.33
C-SB-WX	CHISEL DISC	29.28	29.87	44.78	5.20
C-C-SB-W-M-M	FALL PLOW	29.28	26.92	44.78	2.25
C-SB-C-SB-WX	SPRING PLOW	51.66	25.52	22.39	.85
*C-SB	FALL PLOW	74.05	24.67	0.00	0.00
SB-SB-SB	SPRING PLOW	70.61	23.51	3.44	- 1.16
C-SB-WX	SPRING PLOW	39.61	19.93	34.44	- 4.74
C-SB-C-SB-WX	FALL PLOW	58.55	18.13	15.50	- 6.54
C-SB-SB	FALL PLOW	75.78	18.13	-1.72	- 6.54
C-SB-WX	FALL PLOW	46.50	13.78	27.55	-10.89
SB-SB-SB	FALL PLOW	77.50	5.05	-3.44	-19.62
UNDER T					

C-C-C-M-M-M	NO TILL	4.48	55.04	69.58	30.37
C-C-M-M-M	NO TILL	3.96	50.23	70.09	25.56

SOIL MANAGEMENT ALTERNATIVES FOR EROSION CONTROL
Fairfield County, Ohio - 1982

SOIL = BENNINGTON SILT LOAM SLOPE = A 0 to 2 Soil Symbol BaA
R = 150 K = .43 L = 145 S = 1.2 T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
SB-SB-SB	CHISEL DISC	3.49	83.56	.92	9.68
SB-SB-SB	FALL PLOW	4.61	74.64	-.21	.76
SB-SB-SB	SPRING PLOW	4.20	74.64	.21	.76
C-SB-SB	FALL PLOW	4.51	74.13	-.10	.25
C-SB-SB	SPRING PLOW	4.00	74.13	.41	.25
*C-SB	FALL PLOW	4.41	73.88	0.00	0.00
C-SB	SPRING PLOW	3.90	73.88	.51	0.00
C-C-SB	FALL PLOW	4.31	73.63	.10	- .25
C-C-SB	SPRING PLOW	3.79	73.63	.62	- .25
C-C-C	FALL PLOW	4.10	73.12	.31	- .76
C-C-C	SPRING PLOW	3.69	73.12	.72	- .76
C-SB-C-SB-WX	FALL PLOW	3.49	60.60	.92	-13.28
C-SB-C-SB-WX	SPRING PLOW	3.08	60.60	1.33	-13.28
UNDER T					
C-C-C	NO TILL	.31	94.72	4.10	20.84
C-C-SB	NO TILL	.62	93.45	3.79	19.57
C-SB	NO TILL	.82	92.81	3.59	18.94
C-SB-SB	NO TILL	1.44	92.18	2.97	18.30
SB-SB-SB	NO TILL	2.05	90.91	2.36	17.03
C-SB-SB	CHISEL DISC	2.67	83.05	1.74	9.17
C-SB	CHISEL DISC	2.26	82.80	2.15	8.92
C-C-SB	CHISEL DISC	1.74	82.54	2.67	8.66
C-C-C	CHISEL DISC	1.23	82.03	3.18	8.15
C-SB-C-SB-WX	NO TILL	.72	75.75	3.69	1.87
C-SB-C-SB-WX	CHISEL DISC	1.44	67.73	2.97	- 6.15
C-C-C-M-M-M	NO TILL	.27	65.69	4.14	- 8.19
C-SB-WX	NO TILL	.41	64.37	4.00	- 9.51
C-C-SB-W-M-M	NO TILL	.31	62.51	4.10	-11.37
C-C-M-M-M	NO TILL	.24	59.88	4.17	-14.00
C-C-C-M-M-M	CHISEL DISC	.72	59.34	3.69	-14.54
C-SB-WX	CHISEL DISC	1.74	57.69	2.67	-16.19
C-C-SB-W-M-M	CHISEL DISC	1.13	57.06	3.28	-16.82
C-C-C-M-M-M	FALL PLOW	1.54	54.89	2.87	-18.99
C-C-C-M-M-M	SPRING PLOW	1.33	54.89	3.08	-18.99
C-C-M-M-M	CHISEL DISC	.62	54.81	3.79	-19.07
C-C-SB-W-M-M	FALL PLOW	1.74	52.60	2.67	-21.28
C-C-SB-W-M-M	SPRING PLOW	1.44	52.60	2.97	-21.28
C-SB-WX	FALL PLOW	2.77	51.75	1.64	-22.13
C-SB-WX	SPRING PLOW	2.36	51.75	2.05	-22.13
C-C-M-M-M	FALL PLOW	1.03	51.24	3.38	-22.64
C-C-M-M-M	SPRING PLOW	.82	51.24	3.59	-22.64

SOIL MANAGEMENT ALTERNATIVES FOR EROSION CONTROL
Fairfield County, Ohio - 1982

SOIL = BENNINGTON SILT LOAM SLOPE = B 2 to 6 Soil Symbol BaB1
R = 150 K = .43 L = 129 S = 3.0 T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
SB-SB-SB	NO TILL	4.00	80.30	4.60	15.39
C-C-SB	CHISEL DISC	3.40	74.12	5.20	9.21
C-SB	CHISEL DISC	4.40	73.83	4.20	8.92
C-SB-SB	CHISEL DISC	5.20	73.53	3.40	8.62
SB-SB-SB	CHISEL DISC	6.80	72.95	1.80	8.04
C-C-C	FALL PLOW	8.00	65.79	.60	.88
C-C-C	SPRING PLOW	7.20	65.79	1.40	.88
C-C-SB	FALL PLOW	8.40	65.20	.20	.29
C-C-SB	SPRING PLOW	7.40	65.20	1.20	.29
*C-SB	FALL PLOW	8.60	64.91	0.00	0.00
C-SB	SPRING PLOW	7.60	64.91	1.00	0.00
C-SB-SB	FALL PLOW	8.80	64.62	-.20	-.29
C-SB-SB	SPRING PLOW	7.80	64.62	.80	-.29
SB-SB-SB	FALL PLOW	9.00	64.03	-.40	-.88
SB-SB-SB	SPRING PLOW	8.20	64.03	.40	-.88
C-SB-C-SB-WX	FALL PLOW	6.80	52.10	1.80	-12.81
C-SB-C-SB-WX	SPRING PLOW	6.00	52.10	2.60	-12.81
C-SB-WX	CHISEL DISC	3.40	49.50	5.20	-15.41
C-C-SB-W-M-M	FALL PLOW	3.40	45.39	5.20	-19.52
C-SB-WX	FALL PLOW	5.40	43.56	3.20	-21.35
C-SB-WX	SPRING PLOW	4.60	43.56	4.00	-21.35
UNDER T					
C-C-C	NO TILL	.60	87.39	8.00	22.48
C-C-SB	NO TILL	1.20	85.03	7.40	20.12
C-SB	NO TILL	1.60	83.84	7.00	18.94
C-SB-SB	NO TILL	2.80	82.66	5.80	17.75
C-C-C	CHISEL DISC	2.40	74.70	6.20	9.79
C-SB-C-SB-WX	NO TILL	1.40	67.25	7.20	2.34
C-SB-C-SB-WX	CHISEL DISC	2.80	59.23	5.80	- 5.68
C-C-C-M-M-M	NO TILL	.52	59.19	8.08	- 5.72
C-SB-WX	NO TILL	.80	56.18	7.80	- 8.73
C-C-SB-W-M-M	NO TILL	.60	55.31	8.00	- 9.60
C-C-M-M-M	NO TILL	.46	53.55	8.14	-11.36
C-C-C-M-M-M	CHISEL DISC	1.40	52.84	7.20	-12.07
C-C-SB-W-M-M	CHISEL DISC	2.20	49.85	6.40	-15.06
C-C-M-M-M	CHISEL DISC	1.20	48.47	7.40	-16.44
C-C-C-M-M-M	FALL PLOW	3.00	48.39	5.60	-16.52
C-C-C-M-M-M	SPRING PLOW	2.60	48.39	6.00	-16.52
C-C-SB-W-M-M	SPRING PLOW	2.80	45.39	5.80	-19.52
C-C-M-M-M	FALL PLOW	2.00	44.91	6.60	-20.00
C-C-M-M-M	SPRING PLOW	1.60	44.91	7.00	-20.00

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = CARDINGTON SILT LOAM

R = 150

K = .37

SLOPE = B

L = 214

2 to 6

S = 4.3

Soil Symbol CaB1

T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-SB	CHISEL DISC	5.55	87.98	8.48	27.36
C-SB	CHISEL DISC	7.18	82.90	6.85	22.28
C-SB-SB	CHISEL DISC	8.48	77.81	5.55	17.19
SB-SB-SB	NO TILL	6.53	75.00	7.51	14.38
C-C-C	FALL PLOW	13.05	73.12	.98	12.50
C-C-C	SPRING PLOW	11.75	73.12	2.28	12.50
SB-SB-SB	CHISEL DISC	11.10	67.64	2.94	7.02
C-C-SB	FALL PLOW	13.71	64.79	.33	4.17
C-C-SB	SPRING PLOW	12.07	64.79	1.96	4.17
*C-SB	FALL PLOW	14.03	60.62	0.00	0.00
C-SB	SPRING PLOW	12.40	60.62	1.63	0.00
C-SB-WX	CHISEL DISC	5.55	59.97	8.48	- .65
C-C-SB-W-M-M	FALL PLOW	5.55	58.73	8.48	- 1.89
C-SB-SB	FALL PLOW	14.36	56.45	-.33	- 4.17
C-SB-SB	SPRING PLOW	12.73	56.45	1.31	- 4.17
C-SB-C-SB-WX	FALL PLOW	11.10	51.32	2.94	- 9.30
C-SB-C-SB-WX	SPRING PLOW	9.79	51.32	4.24	- 9.30
SB-SB-SB	FALL PLOW	14.69	48.12	-.65	-12.50
SB-SB-SB	SPRING PLOW	13.38	48.12	.65	-12.50
C-SB-WX	FALL PLOW	8.81	45.12	5.22	-15.50
C-SB-WX	SPRING PLOW	7.51	45.12	6.53	-15.50
UNDER T					

C-C-C	NO TILL	.98	126.96	13.05	66.34
C-C-SB	NO TILL	1.96	109.64	12.07	49.02
C-SB	NO TILL	2.61	100.98	11.42	40.36
C-C-C	CHISEL DISC	3.92	98.15	10.12	37.53
C-C-C-M-M-M	NO TILL	.85	95.97	13.18	35.36
C-SB-SB	NO TILL	4.57	92.32	9.46	31.70
C-C-M-M-M	NO TILL	.75	89.78	13.28	29.16
C-SB-C-SB-WX	NO TILL	2.28	83.61	11.75	22.99
C-C-C-M-M-M	CHISEL DISC	2.28	81.57	11.75	20.95
C-C-SB-W-M-M	NO TILL	.98	81.16	13.05	20.54
C-C-M-M-M	CHISEL DISC	1.96	78.25	12.07	17.63
C-SB-WX	NO TILL	1.31	72.03	12.73	11.41
C-C-SB-W-M-M	CHISEL DISC	3.59	70.33	10.44	9.71
C-SB-C-SB-WX	CHISEL DISC	4.57	69.14	9.46	8.52
C-C-C-M-M-M	FALL PLOW	4.90	69.05	9.14	8.44
C-C-C-M-M-M	SPRING PLOW	4.24	69.05	9.79	8.44
C-C-M-M-M	FALL PLOW	3.26	68.24	10.77	7.62
C-C-M-M-M	SPRING PLOW	2.61	68.24	11.42	7.62
C-C-SB-W-M-M	SPRING PLOW	4.57	58.73	9.46	- 1.89

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

CARDINGTON SILT LOAM
R = 150

K = .37

SLOPE = C 6 to 12
L = 142 S = 10.8

Soil Symbol CaCl
T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
C-C-SB	NO TILL	6.09	82.36	37.58	41.14
C-C-C	CHISEL DISC	12.19	80.57	31.49	39.35
C-SB	NO TILL	8.13	73.26	35.55	32.03
C-C-SB	CHISEL DISC	17.27	66.57	26.41	25.35
C-C-C-M-M-M	CHISEL DISC	7.11	64.28	36.56	23.06
C-SB-SB	NO TILL	14.22	64.15	29.45	22.92
C-C-M-M-M	CHISEL DISC	6.09	61.02	37.58	19.80
C-SB	CHISEL DISC	22.34	59.57	21.33	18.35
C-C-C	FALL PLOW	40.63	58.94	3.05	17.72
C-C-C	SPRING PLOW	36.56	58.94	7.11	17.72
C-SB-C-SB-WX	NO TILL	7.11	58.77	36.56	17.55
C-C-C-M-M-M	FALL PLOW	15.23	53.46	28.44	12.24
C-C-C-M-M-M	SPRING PLOW	13.20	53.46	30.47	12.24
C-SB-SB	CHISEL DISC	26.41	52.57	17.27	11.35
C-C-M-M-M	FALL PLOW	10.16	52.37	33.52	11.15
C-C-M-M-M	SPRING PLOW	8.13	52.37	35.55	11.15
C-C-SB-W-M-M	CHISEL DISC	11.17	51.74	32.50	10.52
C-SB-C-SB-WX	CHISEL DISC	14.22	47.83	29.45	6.60
C-C-SB	FALL PLOW	42.66	47.13	1.02	5.90
C-C-SB	SPRING PLOW	37.58	47.13	6.09	5.90
SB-SB-SB	NO TILL	20.31	45.93	23.36	4.71
C-C-SB-W-M-M	FALL PLOW	17.27	42.02	26.41	.80
C-C-SB-W-M-M	SPRING PLOW	14.22	42.02	29.45	.80
*C-SB	FALL PLOW	43.67	41.23	0.00	0.00
C-SB	SPRING PLOW	38.59	41.23	5.08	0.00
C-SB-WX	CHISEL DISC	17.27	40.00	26.41	- 1.23
SB-SB-SB	CHISEL DISC	34.53	38.57	9.14	- 2.65
C-SB-SB	FALL PLOW	44.69	35.32	-1.02	- 5.90
C-SB-SB	SPRING PLOW	39.61	35.32	4.06	- 5.90
C-SB-C-SB-WX	FALL PLOW	34.53	33.15	9.14	- 8.07
C-SB-C-SB-WX	SPRING PLOW	30.47	33.15	13.20	- 8.07
C-SB-WX	FALL PLOW	27.42	27.77	16.25	-13.46
C-SB-WX	SPRING PLOW	23.36	27.77	20.31	-13.46
SB-SB-SB	FALL PLOW	45.70	23.51	-2.03	-17.72
SB-SB-SB	SPRING PLOW	41.64	23.51	2.03	-17.72
UNDER T					
C-C-C	NO TILL	3.05	100.58	40.63	59.36
C-C-C-M-M-M	NO TILL	2.64	74.29	41.03	33.06
C-C-M-M-M	NO TILL	2.34	69.03	41.34	27.80
C-C-SB-W-M-M	NO TILL	3.05	59.64	40.63	18.42
C-SB-WX	NO TILL	4.06	49.12	39.61	7.90

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = CELINA SILT LOAM
R = 150

K = .37

SLOPE = B
L = 164

2 to 6
S = 2.6

Soil Symbol ChB1
T = 5.0

<u>CROP MANAGEMENT ALTERNATIVES</u>		<u>MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW</u>			
<u>ROTATION</u>	<u>TILLAGE</u>	<u>SOIL LOSS T/A/YR.</u>	<u>NET RETURN PER ACRE</u>	<u>SOIL SAVED T/A/YR.</u>	<u>CHANGE IN NET RETURN PER ACRE</u>
<u>OVER T</u>					
SB-SB-SB	CHISEL DISC	5.49	99.47	1.45	22.94
SB-SB-SB	FALL PLOW	7.27	79.95	-.32	3.42
SB-SB-SB	SPRING PLOW	6.62	79.95	.32	3.42
C-SB-SB	FALL PLOW	7.11	77.67	-.16	1.14
C-SB-SB	SPRING PLOW	6.30	77.67	.65	1.14
*C-SB	FALL PLOW	6.94	76.53	0.00	0.00
C-SB	SPRING PLOW	6.14	76.53	.81	0.00
C-C-SB	FALL PLOW	6.78	75.40	.16	- 1.14
C-C-SB	SPRING PLOW	5.98	75.40	.97	- 1.14
C-C-C	FALL PLOW	6.46	73.12	.48	- 3.42
C-C-C	SPRING PLOW	5.81	73.12	1.13	- 3.42
C-SB-C-SB-WX	FALL PLOW	5.49	64.94	1.45	-11.60
<u>UNDER T</u>					
C-C-C	NO TILL	.48	126.96	6.46	50.43
C-C-SB	NO TILL	.97	120.25	5.98	43.72
C-SB	NO TILL	1.29	116.90	5.65	40.36
C-SB-SB	NO TILL	2.26	113.54	4.68	37.01
C-C-C-M-M-M	NO TILL	.42	107.31	6.52	30.77
SB-SB-SB	NO TILL	3.23	106.83	3.71	30.30
C-C-M-M-M	NO TILL	.37	103.37	6.57	26.84
C-SB-SB	CHISEL DISC	4.20	99.03	2.75	22.50
C-SB	CHISEL DISC	3.55	98.81	3.39	22.28
C-C-SB	CHISEL DISC	2.75	98.59	4.20	22.06
C-C-C	CHISEL DISC	1.94	98.15	5.01	21.62
C-SB-C-SB-WX	NO TILL	1.13	97.23	5.81	20.69
C-C-SB-W-M-M	NO TILL	.48	94.75	6.46	18.22
C-C-C-M-M-M	CHISEL DISC	1.13	92.90	5.81	16.37
C-C-M-M-M	CHISEL DISC	.97	91.85	5.98	15.32
C-SB-WX	NO TILL	.65	84.12	6.30	7.58
C-C-SB-W-M-M	CHISEL DISC	1.78	83.92	5.17	7.39
C-SB-C-SB-WX	CHISEL DISC	2.26	82.76	4.68	6.23
C-C-M-M-M	FALL PLOW	1.62	81.84	5.33	5.30
C-C-M-M-M	SPRING PLOW	1.29	81.84	5.65	5.30
C-C-C-M-M-M	FALL PLOW	2.42	80.38	4.52	3.85
C-C-C-M-M-M	SPRING PLOW	2.10	80.38	4.85	3.85
C-C-SB-W-M-M	FALL PLOW	2.75	72.33	4.20	- 4.21
C-C-SB-W-M-M	SPRING PLOW	2.26	72.33	4.68	- 4.21
C-SB-WX	CHISEL DISC	2.75	72.06	4.20	- 4.48
C-SB-C-SB-WX	SPRING PLOW	4.85	64.94	2.10	-11.60
C-SB-WX	FALL PLOW	4.36	57.21	2.58	-19.33
C-SB-WX	SPRING PLOW	3.71	57.21	3.23	-19.33

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = CROSBY SILT LOAM
R = 150

K = .43

SLOPE = A
L = 193

0 to 2
S = 1.2

Soil Symbol CoA
T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
SB-SB-SB	CHISEL DISC	3.79	94.17	1.00	6.92
C-C-C	FALL PLOW	4.46	89.24	.33	1.99
C-C-C	SPRING PLOW	4.02	89.24	.78	1.99
C-C-SB	FALL PLOW	4.69	87.91	.11	.66
C-C-SB	SPRING PLOW	4.13	87.91	.67	.66
*C-SB	FALL PLOW	4.80	87.25	0.00	0.00
C-SB	SPRING PLOW	4.24	87.25	.56	0.00
C-SB-SB	FALL PLOW	4.91	86.59	-.11	- .66
C-SB-SB	SPRING PLOW	4.35	86.59	.45	- .66
SB-SB-SB	FALL PLOW	5.02	85.26	-.22	- 1.99
SB-SB-SB	SPRING PLOW	4.57	85.26	.22	- 1.99
C-SB-C-SB-WX	FALL PLOW	3.79	71.30	1.00	-15.95
C-SB-C-SB-WX	SPRING PLOW	3.35	71.30	1.45	-15.95
C-SB-WX	FALL PLOW	3.01	60.66	1.79	-26.59
UNDER T					
C-C-C	NO TILL	.33	110.84	4.46	23.59
C-C-SB	NO TILL	.67	107.73	4.13	20.48
C-SB	NO TILL	.89	106.18	3.91	18.93
C-SB-SB	NO TILL	1.56	104.63	3.24	17.38
SB-SB-SB	NO TILL	2.23	101.52	2.57	14.27
C-C-C-M-M-M	NO TILL	.29	99.25	4.51	12.00
C-C-C	CHISEL DISC	1.34	98.15	3.46	10.90
C-C-M-M-M	NO TILL	.26	96.93	4.54	9.68
C-C-SB	CHISEL DISC	1.90	96.82	2.90	9.57
C-SB	CHISEL DISC	2.45	96.16	2.34	8.91
C-SB-SB	CHISEL DISC	2.90	95.50	1.90	8.25
C-C-C-M-M-M	CHISEL DISC	.78	92.90	4.02	5.65
C-C-M-M-M	CHISEL DISC	.67	91.85	4.13	4.60
C-C-C-M-M-M	FALL PLOW	1.67	88.45	3.12	1.19
C-C-C-M-M-M	SPRING PLOW	1.45	88.45	3.35	1.19
C-C-M-M-M	FALL PLOW	1.12	88.29	3.68	1.04
C-C-M-M-M	SPRING PLOW	.89	88.29	3.91	1.04
C-C-SB-W-M-M	NO TILL	.33	86.65	4.46	- .60
C-SB-C-SB-WX	NO TILL	.78	86.44	4.02	- .81
C-C-SB-W-M-M	CHISEL DISC	1.23	81.20	3.57	- 6.05
C-SB-C-SB-WX	CHISEL DISC	1.56	78.43	3.24	- 8.82
C-C-SB-W-M-M	FALL PLOW	1.90	76.74	2.90	-10.51
C-C-SB-W-M-M	SPRING PLOW	1.56	76.74	3.24	-10.51
C-SB-WX	NO TILL	.45	73.28	4.35	-13.97
C-SB-WX	CHISEL DISC	1.90	66.60	2.90	-20.65
C-SB-WX	SPRING PLOW	2.57	60.66	2.23	-26.59

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = CROSBY SILT LOAM
R = 150

K = .43

SLOPE = B
L = 211

2 to 6
S = 2.8

Soil Symbol CoB2
T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-SB-SB	NO TILL	3.03	99.14	6.28	17.48
SB-SB-SB	NO TILL	4.33	96.22	4.98	14.56
C-C-SB	CHISEL DISC	3.68	91.15	5.63	9.48
C-SB	CHISEL DISC	4.77	90.57	4.55	8.91
C-SB-SB	CHISEL DISC	5.63	90.00	3.68	8.34
SB-SB-SB	CHISEL DISC	7.37	88.86	1.95	7.20
C-C-C-M-M-M	FALL PLOW	3.25	85.51	6.07	3.85
C-C-C	FALL PLOW	8.67	83.38	.65	1.71
C-C-C	SPRING PLOW	7.80	83.38	1.52	1.71
C-C-SB	FALL PLOW	9.10	82.24	.22	.57
C-C-SB	SPRING PLOW	8.02	82.24	1.30	.57
*C-SB	FALL PLOW	9.32	81.66	0.00	0.00
C-SB	SPRING PLOW	8.24	81.66	1.08	0.00
C-SB-SB	FALL PLOW	9.54	81.09	-.22	-.57
C-SB-SB	SPRING PLOW	8.45	81.09	.87	-.57
SB-SB-SB	FALL PLOW	9.75	79.95	-.43	-1.71
SB-SB-SB	SPRING PLOW	8.89	79.95	.43	-1.71
C-C-SB-W-M-M	FALL PLOW	3.68	73.16	5.63	-8.50
C-C-SB-W-M-M	SPRING PLOW	3.03	73.16	6.28	-8.50
C-SB-C-SB-WX	CHISEL DISC	3.03	73.07	6.28	-8.59
C-SB-C-SB-WX	FALL PLOW	7.37	65.94	1.95	-15.72
C-SB-C-SB-WX	SPRING PLOW	6.50	65.94	2.82	-15.72
C-SB-WX	CHISEL DISC	3.68	61.40	5.63	-20.26
C-SB-WX	FALL PLOW	5.85	55.46	3.47	-26.20
C-SB-WX	SPRING PLOW	4.98	55.46	4.33	-26.20
UNDER T					

C-C-C	NO TILL	.65	104.98	8.67	23.32
C-C-SB	NO TILL	1.30	102.06	8.02	20.40
C-SB	NO TILL	1.73	100.60	7.59	18.94
C-C-C-M-M-M	NO TILL	.56	96.32	8.76	14.65
C-C-M-M-M	NO TILL	.50	94.58	8.82	12.92
C-C-C	CHISEL DISC	2.60	92.29	6.72	10.63
C-C-C-M-M-M	CHISEL DISC	1.52	89.97	7.80	8.30
C-C-M-M-M	CHISEL DISC	1.30	89.51	8.02	7.84
C-C-M-M-M	FALL PLOW	2.17	85.94	7.15	4.28
C-C-M-M-M	SPRING PLOW	1.73	85.94	7.59	4.28
C-C-C-M-M-M	SPRING PLOW	2.82	85.51	6.50	3.85
C-C-SB-W-M-M	NO TILL	.65	83.08	8.67	1.41
C-SB-C-SB-WX	NO TILL	1.52	81.09	7.80	-.57
C-C-SB-W-M-M	CHISEL DISC	2.38	77.62	6.94	-4.05
C-SB-WX	NO TILL	.87	68.09	8.45	-13.58

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX SILT LOAM
R = 150

K = .37

SLOPE = A
L = 208

0 to 2
S = .8

Soil Symbol FeA1
T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

UNDER T					

C-C-C	NO TILL	.22	106.44	2.89	40.06
C-C-C-M-M-M	NO TILL	.19	105.55	2.91	39.17
C-C-M-M-M	NO TILL	.17	105.37	2.94	38.99
C-C-SB	NO TILL	.43	97.73	2.67	31.35
C-C-M-M-M	CHISEL DISC	.43	96.77	2.67	30.40
C-C-C-M-M-M	CHISEL DISC	.51	94.81	2.60	28.43
C-SB	NO TILL	.58	93.37	2.53	27.00
C-C-M-M-M	FALL PLOW	.72	90.28	2.38	23.90
C-C-M-M-M	SPRING PLOW	.58	90.28	2.53	23.90
C-SB-SB	NO TILL	1.01	89.01	2.09	22.64
C-C-SB-W-M-M	NO TILL	.22	87.32	2.89	20.94
C-C-C-M-M-M	FALL PLOW	1.08	86.69	2.02	20.31
C-C-C-M-M-M	SPRING PLOW	.94	86.69	2.16	20.31
C-C-C	CHISEL DISC	.87	84.96	2.24	18.59
C-C-SB	CHISEL DISC	1.23	80.96	1.88	14.58
SB-SB-SB	NO TILL	1.44	80.30	1.66	13.93
C-SB	CHISEL DISC	1.59	78.95	1.52	12.58
C-C-SB-W-M-M	CHISEL DISC	.79	78.93	2.31	12.56
C-SB-SB	CHISEL DISC	1.88	76.95	1.23	10.58
C-SB-C-SB-WX	NO TILL	.51	76.19	2.60	9.82
SB-SB-SB	CHISEL DISC	2.45	72.95	.65	6.58
C-C-SB-W-M-M	FALL PLOW	1.23	72.03	1.88	5.66
C-C-SB-W-M-M	SPRING PLOW	1.01	72.03	2.09	5.66
C-C-C	FALL PLOW	2.89	68.72	.22	2.34
C-C-C	SPRING PLOW	2.60	68.72	.51	2.34
C-C-SB	FALL PLOW	3.03	67.16	.07	.78
C-C-SB	SPRING PLOW	2.67	67.16	.43	.78
*C-SB	FALL PLOW	3.10	66.37	0.00	0.00
C-SB	SPRING PLOW	2.74	66.37	.36	0.00
C-SB-SB	FALL PLOW	3.17	65.59	-.07	- .78
C-SB-SB	SPRING PLOW	2.81	65.59	.29	- .78
C-SB-WX	NO TILL	.29	64.74	2.81	- 1.63
C-SB-C-SB-WX	CHISEL DISC	1.01	64.66	2.09	- 1.71
SB-SB-SB	FALL PLOW	3.25	64.03	-.14	- 2.34
SB-SB-SB	SPRING PLOW	2.96	64.03	.14	- 2.34
C-SB-WX	CHISEL DISC	1.23	55.13	1.88	-11.24
C-SB-C-SB-WX	FALL PLOW	2.45	54.60	.65	-11.78
C-SB-C-SB-WX	SPRING PLOW	2.16	54.60	.94	-11.78
C-SB-WX	FALL PLOW	1.95	46.75	1.15	-19.63
C-SB-WX	SPRING PLOW	1.66	46.75	1.44	-19.63

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX SILT LOAM
R = 150

K = .37

SLOPE = B
L = 194

2 to 6
S = 3.1

Soil Symbol FeB1
T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

SB-SB-SB	NO TILL	4.43	96.22	5.09	31.31
SB-SB-SB	CHISEL DISC	7.53	88.86	1.99	23.95
C-SB-SB	CHISEL DISC	5.76	86.58	3.76	21.67
C-SB	CHISEL DISC	4.87	85.44	4.65	20.54
C-C-C	FALL PLOW	8.86	65.79	.66	.88
C-C-C	SPRING PLOW	7.97	65.79	1.55	.88
C-C-SB	FALL PLOW	9.30	65.20	.22	.29
C-C-SB	SPRING PLOW	8.19	65.20	1.33	.29
*C-SB	FALL PLOW	9.52	64.91	0.00	0.00
C-SB	SPRING PLOW	8.41	64.91	1.11	0.00
C-SB-SB	FALL PLOW	9.74	64.62	-.22	-.29
C-SB-SB	SPRING PLOW	8.64	64.62	.89	-.29
SB-SB-SB	FALL PLOW	9.97	64.03	-.44	-.88
SB-SB-SB	SPRING PLOW	9.08	64.03	.44	-.88
C-SB-C-SB-WX	FALL PLOW	7.53	53.43	1.99	-11.48
C-SB-C-SB-WX	SPRING PLOW	6.64	53.43	2.88	-11.48
C-SB-WX	FALL PLOW	5.98	45.77	3.54	-19.14
C-SB-WX	SPRING PLOW	5.09	45.77	4.43	-19.14
UNDER T					

C-C-M-M-M	NO TILL	.51	104.19	9.01	39.28
C-C-C-M-M-M	NO TILL	.58	104.08	8.95	39.17
C-C-C	NO TILL	.66	103.51	8.86	38.60
C-C-SB	NO TILL	1.33	101.08	8.19	36.17
C-SB	NO TILL	1.77	99.87	7.75	34.96
C-SB-SB	NO TILL	3.10	98.65	6.42	33.74
C-C-M-M-M	CHISEL DISC	1.33	95.60	8.19	30.69
C-C-C-M-M-M	CHISEL DISC	1.55	93.34	7.97	28.43
C-C-M-M-M	FALL PLOW	2.21	89.11	7.31	24.20
C-C-M-M-M	SPRING PLOW	1.77	89.11	7.75	24.20
C-C-SB-W-M-M	NO TILL	.66	88.99	8.86	24.08
C-C-C-M-M-M	FALL PLOW	3.32	85.22	6.20	20.31
C-C-C-M-M-M	SPRING PLOW	2.88	85.22	6.64	20.31
C-C-SB	CHISEL DISC	3.76	84.31	5.76	19.40
C-C-C	CHISEL DISC	2.66	82.03	6.86	17.12
C-SB-C-SB-WX	NO TILL	1.55	81.39	7.97	16.48
C-C-SB-W-M-M	CHISEL DISC	2.44	80.60	7.09	15.70
C-C-SB-W-M-M	FALL PLOW	3.76	71.05	5.76	6.14
C-C-SB-W-M-M	SPRING PLOW	3.10	71.05	6.42	6.14
C-SB-C-SB-WX	CHISEL DISC	3.10	69.85	6.42	4.94
C-SB-WX	NO TILL	.89	69.07	8.64	4.16
C-SB-WX	CHISEL DISC	3.76	59.46	5.76	- 5.45

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX SILT LOAM
R = 150

K = .37

SLOPE = C
L = 185

6 to 12
S = 9.6

Soil Symbol FeC2
T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-SB	NO TILL	5.84	89.91	36.00	38.72
C-SB	NO TILL	7.78	87.51	34.05	36.32
C-C-M-M-M	CHISEL DISC	5.84	85.87	36.00	34.68
C-SB-SB	NO TILL	13.62	85.11	28.21	33.92
C-C-C-M-M-M	CHISEL DISC	6.81	84.01	35.02	32.82
SB-SB-SB	NO TILL	19.46	80.30	22.38	29.11
C-C-M-M-M	FALL PLOW	9.73	80.16	32.11	28.97
C-C-M-M-M	SPRING PLOW	7.78	80.16	34.05	28.97
C-C-C-M-M-M	FALL PLOW	14.59	76.87	27.24	25.68
C-C-C-M-M-M	SPRING PLOW	12.65	76.87	29.19	25.68
C-C-C	CHISEL DISC	11.67	74.70	30.16	23.51
C-C-SB	CHISEL DISC	16.54	74.12	25.30	22.93
C-SB	CHISEL DISC	21.40	73.83	20.43	22.64
C-SB-SB	CHISEL DISC	25.30	73.53	16.54	22.34
SB-SB-SB	CHISEL DISC	33.08	72.95	8.76	21.76
C-C-SB-W-M-M	CHISEL DISC	10.70	69.89	31.13	18.70
C-SB-C-SB-WX	NO TILL	6.81	69.29	35.02	18.10
C-C-C	FALL PLOW	38.92	60.41	2.92	9.22
C-C-C	SPRING PLOW	35.02	60.41	6.81	9.22
C-C-SB-W-M-M	FALL PLOW	16.54	59.96	25.30	8.77
C-C-SB-W-M-M	SPRING PLOW	13.62	59.96	28.21	8.77
C-SB-C-SB-WX	CHISEL DISC	13.62	58.34	28.21	7.15
C-C-SB	FALL PLOW	40.86	54.26	.97	3.07
C-C-SB	SPRING PLOW	36.00	54.26	5.84	3.07
*C-SB	FALL PLOW	41.84	51.19	0.00	0.00
C-SB	SPRING PLOW	36.97	51.19	4.86	0.00
C-SB-SB	FALL PLOW	42.81	48.12	- .97	- 3.07
C-SB-SB	SPRING PLOW	37.94	48.12	3.89	- 3.07
C-SB-WX	CHISEL DISC	16.54	48.02	25.30	- 3.17
SB-SB-SB	FALL PLOW	43.78	41.97	-1.95	- 9.22
SB-SB-SB	SPRING PLOW	39.89	41.97	1.95	- 9.22
C-SB-C-SB-WX	FALL PLOW	33.08	40.24	8.76	-10.95
C-SB-C-SB-WX	SPRING PLOW	29.19	40.24	12.65	-10.95
C-SB-WX	FALL PLOW	26.27	32.93	15.57	-18.26
C-SB-WX	SPRING PLOW	22.38	32.93	19.46	-18.26
UNDER T					

C-C-C	NO TILL	2.92	94.72	38.92	43.53
C-C-C-M-M-M	NO TILL	2.53	94.02	39.31	42.83
C-C-M-M-M	NO TILL	2.24	93.88	39.60	42.69
C-C-SB-W-M-M	NO TILL	2.92	77.79	38.92	26.60
C-SB-WX	NO TILL	3.89	57.15	37.94	5.96

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX GRAVELLY LOAM
R = 150

K = .37

SLOPE = A
L = 208

0 to 2
S = .8

Soil Symbol FcA1
T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

UNDER T					

C-C-M-M-M	NO TILL	.17	97.86	2.94	40.21
C-C-C-M-M-M	NO TILL	.19	97.58	2.91	39.93
C-C-C	NO TILL	.22	96.18	2.89	38.53
C-C-SB	NO TILL	.43	92.66	2.67	35.01
C-SB	NO TILL	.58	90.90	2.53	33.25
C-C-M-M-M	CHISEL DISC	.43	89.86	2.67	32.21
C-SB-SB	NO TILL	1.01	89.13	2.09	31.48
C-C-C-M-M-M	CHISEL DISC	.51	87.57	2.60	29.93
SB-SB-SB	NO TILL	1.44	85.61	1.66	27.96
C-C-M-M-M	FALL PLOW	.72	84.14	2.38	26.49
C-C-M-M-M	SPRING PLOW	.58	84.14	2.53	26.49
C-C-SB-W-M-M	NO TILL	.22	81.78	2.89	24.13
C-C-C-M-M-M	FALL PLOW	1.08	80.43	2.02	22.78
C-C-C-M-M-M	SPRING PLOW	.94	80.43	2.16	22.78
SB-SB-SB	CHISEL DISC	2.45	78.25	.65	20.60
C-SB-SB	CHISEL DISC	1.88	77.56	1.23	19.91
C-SB	CHISEL DISC	1.59	77.21	1.52	19.56
C-C-SB	CHISEL DISC	1.23	76.86	1.88	19.21
C-C-C	CHISEL DISC	.87	76.17	2.24	18.52
C-C-SB-W-M-M	CHISEL DISC	.79	73.89	2.31	16.24
C-SB-C-SB-WX	NO TILL	.51	72.89	2.60	15.24
C-C-SB-W-M-M	FALL PLOW	1.23	64.99	1.88	7.34
C-C-SB-W-M-M	SPRING PLOW	1.01	64.99	2.09	7.34
C-SB-C-SB-WX	CHISEL DISC	1.01	61.94	2.09	4.29
C-C-C	FALL PLOW	2.89	61.88	.22	4.23
C-C-C	SPRING PLOW	2.60	61.88	.51	4.23
C-SB-WX	NO TILL	.29	60.88	2.81	3.23
C-C-SB	FALL PLOW	3.03	59.06	.07	1.41
C-C-SB	SPRING PLOW	2.67	59.06	.43	1.41
*C-SB	FALL PLOW	3.10	57.65	0.00	0.00
C-SB	SPRING PLOW	2.74	57.65	.36	0.00
C-SB-SB	FALL PLOW	3.17	56.24	-.07	- 1.41
C-SB-SB	SPRING PLOW	2.81	56.24	.29	- 1.41
SB-SB-SB	FALL PLOW	3.25	53.42	-.14	- 4.23
SB-SB-SB	SPRING PLOW	2.96	53.42	.14	- 4.23
C-SB-WX	CHISEL DISC	1.23	51.76	1.88	- 5.89
C-SB-C-SB-WX	FALL PLOW	2.45	46.29	.65	-11.36
C-SB-C-SB-WX	SPRING PLOW	2.16	46.29	.94	-11.36
C-SB-WX	FALL PLOW	1.95	38.72	1.15	-18.93
C-SB-WX	SPRING PLOW	1.66	38.72	1.44	-18.93

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX GRAVELLY LOAM

R = 150

K = .37

SLOPE = B

L = 194

2 to 6

S = 3.1

Soil Symbol FcB1

T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

SB-SB-SB	NO TILL	4.43	85.61	5.09	33.09
SB-SB-SB	CHISEL DISC	7.53	78.25	1.99	25.73
C-SB-SB	CHISEL DISC	5.76	74.79	3.76	22.27
C-SB	CHISEL DISC	4.87	73.05	4.65	20.54
SB-SB-SB	FALL PLOW	9.97	53.42	-.44	.90
SB-SB-SB	SPRING PLOW	9.08	53.42	.44	.90
C-SB-SB	FALL PLOW	9.74	52.82	-.22	.30
C-SB-SB	SPRING PLOW	8.64	52.82	.89	.30
*C-SB	FALL PLOW	9.52	52.52	0.00	0.00
C-SB	SPRING PLOW	8.41	52.52	1.11	0.00
C-C-SB	FALL PLOW	9.30	52.22	.22	- .30
C-C-SB	SPRING PLOW	8.19	52.22	1.33	- .30
C-C-C	FALL PLOW	8.86	51.62	.66	- .90
C-C-C	SPRING PLOW	7.97	51.62	1.55	- .90
C-SB-C-SB-WX	FALL PLOW	7.53	42.19	1.99	-10.33
C-SB-C-SB-WX	SPRING PLOW	6.64	42.19	2.88	-10.33
C-SB-WX	FALL PLOW	5.98	35.30	3.54	-17.22
C-SB-WX	SPRING PLOW	5.09	35.30	4.43	-17.22
UNDER T					

C-C-M-M-M	NO TILL	.51	93.95	9.01	41.43
C-C-C-M-M-M	NO TILL	.58	92.70	8.95	40.18
C-C-M-M-M	CHISEL DISC	1.33	86.53	8.19	34.01
C-C-C	NO TILL	.66	86.41	8.86	33.89
C-C-SB	NO TILL	1.33	86.14	8.19	33.62
C-SB	NO TILL	1.77	86.01	7.75	33.49
C-SB-SB	NO TILL	3.10	85.88	6.42	33.36
C-C-C-M-M-M	CHISEL DISC	1.55	83.42	7.97	30.90
C-C-M-M-M	FALL PLOW	2.21	80.04	7.31	27.52
C-C-M-M-M	SPRING PLOW	1.77	80.04	7.75	27.52
C-C-SB-W-M-M	NO TILL	.66	78.53	8.86	26.01
C-C-C-M-M-M	FALL PLOW	3.32	75.30	6.20	22.78
C-C-C-M-M-M	SPRING PLOW	2.88	75.30	6.64	22.78
C-C-SB	CHISEL DISC	3.76	71.32	5.76	18.80
C-C-SB-W-M-M	CHISEL DISC	2.44	71.12	7.09	18.60
C-SB-C-SB-WX	NO TILL	1.55	68.98	7.97	16.46
C-C-C	CHISEL DISC	2.66	67.86	6.86	15.34
C-C-SB-W-M-M	FALL PLOW	3.76	61.57	5.76	9.05
C-C-SB-W-M-M	SPRING PLOW	3.10	61.57	6.42	9.05
C-SB-C-SB-WX	CHISEL DISC	3.10	58.61	6.42	6.09
C-SB-WX	NO TILL	.89	57.62	8.64	5.10
C-SB-WX	CHISEL DISC	3.76	48.99	5.76	-3.53

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX LOAM
R = 150

K = .37

SLOPE = A 0 to 2
L = 208 S = .8

Soil Symbol FdA1
T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

UNDER T					

C-C-C	NO TILL	.22	104.98	2.89	39.34
C-C-C-M-M-M	NO TILL	.19	104.82	2.91	39.17
C-C-M-M-M	NO TILL	.17	104.78	2.94	39.14
C-C-SB	NO TILL	.43	102.06	2.67	36.42
C-SB	NO TILL	.58	100.60	2.53	34.96
C-SB-SB	NO TILL	1.01	99.14	2.09	33.50
SB-SB-SB	NO TILL	1.44	96.22	1.66	30.58
C-C-M-M-M	CHISEL DISC	.43	96.19	2.67	30.55
C-C-C-M-M-M	CHISEL DISC	.51	94.08	2.60	28.43
C-C-M-M-M	FALL PLOW	.72	89.69	2.38	24.05
C-C-M-M-M	SPRING PLOW	.58	89.69	2.53	24.05
SB-SB-SB	CHISEL DISC	2.45	88.86	.65	23.22
C-C-SB-W-M-M	NO TILL	.22	88.74	2.89	23.10
C-SB-SB	CHISEL DISC	1.88	87.07	1.23	21.43
C-SB	CHISEL DISC	1.59	86.18	1.52	20.54
C-C-C-M-M-M	FALL PLOW	1.08	85.96	2.02	20.31
C-C-C-M-M-M	SPRING PLOW	.94	85.96	2.16	20.31
C-C-SB	CHISEL DISC	1.23	85.29	1.88	19.64
C-C-C	CHISEL DISC	.87	83.50	2.24	17.86
C-SB-C-SB-WX	NO TILL	.51	81.09	2.60	15.45
C-C-SB-W-M-M	CHISEL DISC	.79	80.36	2.31	14.71
C-C-SB-W-M-M	FALL PLOW	1.23	70.81	1.88	5.16
C-C-SB-W-M-M	SPRING PLOW	1.01	70.81	2.09	5.16
C-SB-C-SB-WX	CHISEL DISC	1.01	69.56	2.09	3.91
C-SB-WX	NO TILL	.29	68.09	2.81	2.44
C-C-C	FALL PLOW	2.89	67.26	.22	1.62
C-C-C	SPRING PLOW	2.60	67.26	.51	1.62
C-C-SB	FALL PLOW	3.03	66.18	.07	.54
C-C-SB	SPRING PLOW	2.67	66.18	.43	.54
*C-SB	FALL PLOW	3.10	65.65	0.00	0.00
C-SB	SPRING PLOW	2.74	65.65	.36	0.00
C-SB-SB	FALL PLOW	3.17	65.11	-.07	-.54
C-SB-SB	SPRING PLOW	2.81	65.11	.29	-.54
SB-SB-SB	FALL PLOW	3.25	64.03	-.14	-1.62
SB-SB-SB	SPRING PLOW	2.96	64.03	.14	-1.62
C-SB-WX	CHISEL DISC	1.23	58.47	1.88	-7.17
C-SB-C-SB-WX	FALL PLOW	2.45	53.13	.65	-12.52
C-SB-C-SB-WX	SPRING PLOW	2.16	53.13	.94	-12.52
C-SB-WX	FALL PLOW	1.95	44.78	1.15	-20.86
C-SB-WX	SPRING PLOW	1.66	44.78	1.44	-20.86

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX LOAM
R = 150

K = .37

SLOPE = B 2 to 6
L = 194 S = 3.1

Soil Symbol FdB1
T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
SB-SB-SB	NO TILL	4.43	96.22	5.09	30.58
SB-SB-SB	CHISEL DISC	7.53	88.86	1.99	23.22
C-SB-SB	CHISEL DISC	5.76	87.07	3.76	21.43
C-SB	CHISEL DISC	4.87	86.18	4.65	20.54
C-C-C	FALL PLOW	8.86	67.26	.66	1.62
C-C-C	SPRING PLOW	7.97	67.26	1.55	1.62
C-C-SB	FALL PLOW	9.30	66.18	.22	.54
C-C-SB	SPRING PLOW	8.19	66.18	1.33	.54
*C-SB	FALL PLOW	9.52	65.65	0.00	0.00
C-SB	SPRING PLOW	8.41	65.65	1.11	0.00
C-SB-SB	FALL PLOW	9.74	65.11	-.22	-.54
C-SB-SB	SPRING PLOW	8.64	65.11	.89	-.54
SB-SB-SB	FALL PLOW	9.97	64.03	-.44	-1.62
SB-SB-SB	SPRING PLOW	9.08	64.03	.44	-1.62
C-SB-C-SB-WX	FALL PLOW	7.53	53.13	1.99	-12.52
C-SB-C-SB-WX	SPRING PLOW	6.64	53.13	2.88	-12.52
C-SB-WX	FALL PLOW	5.98	44.78	3.54	-20.86
C-SB-WX	SPRING PLOW	5.09	44.78	4.43	-20.86
UNDER T					
C-C-C	NO TILL	.66	104.98	8.86	39.34
C-C-C-M-M-M	NO TILL	.58	104.82	8.95	39.17
C-C-M-M-M	NO TILL	.51	104.78	9.01	39.14
C-C-SB	NO TILL	1.33	102.06	8.19	36.42
C-SB	NO TILL	1.77	100.60	7.75	34.96
C-SB-SB	NO TILL	3.10	99.14	6.42	33.50
C-C-M-M-M	CHISEL DISC	1.33	96.19	8.19	30.55
C-C-C-M-M-M	CHISEL DISC	1.55	94.08	7.97	28.43
C-C-M-M-M	FALL PLOW	2.21	89.69	7.31	24.05
C-C-M-M-M	SPRING PLOW	1.77	89.69	7.75	24.05
C-C-SB-W-M-M	NO TILL	.66	88.74	8.86	23.10
C-C-C-M-M-M	FALL PLOW	3.32	85.96	6.20	20.31
C-C-C-M-M-M	SPRING PLOW	2.88	85.96	6.64	20.31
C-C-SB	CHISEL DISC	3.76	85.29	5.76	19.64
C-C-C	CHISEL DISC	2.66	83.50	6.86	17.86
C-SB-C-SB-WX	NO TILL	1.55	81.09	7.97	15.45
C-C-SB-W-M-M	CHISEL DISC	2.44	80.36	7.09	14.71
C-C-SB-W-M-M	FALL PLOW	3.76	70.81	5.76	5.16
C-C-SB-W-M-M	SPRING PLOW	3.10	70.81	6.42	5.16
C-SB-C-SB-WX	CHISEL DISC	3.10	69.56	6.42	3.91
C-SB-WX	NO TILL	.89	68.09	8.64	2.44
C-SB-WX	CHISEL DISC	3.76	58.47	5.76	-7.17

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = FOX LOAM
R = 150

K = .37

SLOPE = D 12 to 18
L = 194 S = 12.7

Soil Symbol FdD2
T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-C	NO TILL	4.24	80.54	56.50	55.13
C-C-M-M-M	CHISEL DISC	8.47	70.59	52.26	45.18
C-C-C-M-M-M	CHISEL DISC	9.89	69.16	50.85	43.75
C-C-SB	NO TILL	8.47	69.00	52.26	43.60
C-C-M-M-M	FALL PLOW	14.12	64.10	46.61	38.69
C-C-M-M-M	SPRING PLOW	11.30	64.10	49.44	38.69
C-SB	NO TILL	11.30	63.24	49.44	37.83
C-C-C	CHISEL DISC	16.95	61.99	43.79	36.59
C-C-C-M-M-M	FALL PLOW	21.19	61.04	39.55	35.64
C-C-C-M-M-M	SPRING PLOW	18.36	61.04	42.37	35.64
C-C-SB-W-M-M	NO TILL	4.24	60.56	56.50	35.15
C-SB-SB	NO TILL	19.77	57.47	40.96	32.06
C-C-SB	CHISEL DISC	24.01	54.18	36.72	28.78
C-C-SB-W-M-M	CHISEL DISC	15.54	53.15	45.20	27.74
C-SB	CHISEL DISC	31.07	50.28	29.66	24.88
C-SB-C-SB-WX	NO TILL	9.89	48.54	50.85	23.14
C-SB-SB	CHISEL DISC	36.72	46.38	24.01	20.97
SB-SB-SB	NO TILL	28.25	45.93	32.49	20.53
C-C-C	FALL PLOW	56.50	45.76	4.24	20.36
C-C-C	SPRING PLOW	50.85	45.76	9.89	20.36
C-C-SB-W-M-M	SPRING PLOW	19.77	45.23	40.96	19.82
C-C-SB-W-M-M	FALL PLOW	24.01	42.15	36.72	16.75
C-SB-WX	NO TILL	5.65	38.75	55.09	13.35
SB-SB-SB	CHISEL DISC	48.02	38.57	12.71	13.17
C-C-SB	SPRING PLOW	52.26	38.34	8.47	12.94
C-SB-C-SB-WX	CHISEL DISC	19.77	38.18	40.96	12.78
C-SB	SPRING PLOW	53.67	34.64	7.06	9.23
C-C-SB	FALL PLOW	59.32	32.19	1.41	6.78
C-SB-SB	SPRING PLOW	55.09	30.93	5.65	5.52
C-SB-WX	CHISEL DISC	24.01	30.11	36.72	4.71
C-SB-C-SB-WX	SPRING PLOW	42.37	25.66	18.36	.26
*C-SB	FALL PLOW	60.74	25.41	0.00	0.00
SB-SB-SB	SPRING PLOW	57.91	23.51	2.82	- 1.90
C-SB-WX	SPRING PLOW	32.49	19.68	28.25	- 5.72
C-SB-SB	FALL PLOW	62.15	18.62	-1.41	- 6.79
C-SB-C-SB-WX	FALL PLOW	48.02	18.28	12.71	- 7.13
C-SB-WX	FALL PLOW	38.14	13.53	22.60	-11.88
SB-SB-SB	FALL PLOW	63.56	5.05	-2.82	-20.36
UNDER T					

C-C-C-M-M-M	NO TILL	3.67	78.43	57.06	53.02
C-C-M-M-M	NO TILL	3.25	78.01	57.49	52.60

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = HANOVER SILT LOAM
R = 150

K = .37

SLOPE = B 2 to 6
L = 200 S = 4.0

Soil Symbol HaB1
T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-SB	CHISEL DISC	6.45	93.05	6.15	22.28
SB-SB-SB	NO TILL	5.86	90.91	6.74	20.14
C-SB-SB	CHISEL DISC	7.62	89.89	4.98	19.12
SB-SB-SB	CHISEL DISC	9.96	83.56	2.64	12.79
C-C-C	FALL PLOW	11.72	77.52	.88	6.75
C-C-C	SPRING PLOW	10.55	77.52	2.05	6.75
C-C-SB	FALL PLOW	12.31	73.02	.29	2.25
C-C-SB	SPRING PLOW	10.84	73.02	1.76	2.25
*C-SB	FALL PLOW	12.60	70.78	0.00	0.00
C-SB	SPRING PLOW	11.14	70.78	1.47	0.00
C-SB-SB	FALL PLOW	12.89	68.53	-.29	- 2.25
C-SB-SB	SPRING PLOW	11.43	68.53	1.17	- 2.25
SB-SB-SB	FALL PLOW	13.19	64.03	-.59	- 6.75
SB-SB-SB	SPRING PLOW	12.01	64.03	.59	- 6.75
C-SB-C-SB-WX	FALL PLOW	9.96	59.45	2.64	-11.33
C-SB-C-SB-WX	SPRING PLOW	8.79	59.45	3.81	-11.33
C-SB-WX	FALL PLOW	7.91	51.89	4.69	-18.88
C-SB-WX	SPRING PLOW	6.74	51.89	5.86	-18.88
UNDER T					

C-C-C	NO TILL	.88	130.88	11.72	60.10
C-C-SB	NO TILL	1.76	117.56	10.84	46.78
C-SB	NO TILL	2.34	110.90	10.26	40.12
C-SB-SB	NO TILL	4.10	104.23	8.50	33.46
C-C-C	CHISEL DISC	3.52	102.55	9.08	31.78
C-C-SB	CHISEL DISC	4.98	96.22	7.62	25.45
C-C-C-M-M-M	NO TILL	.76	92.26	11.84	21.49
C-SB-C-SB-WX	NO TILL	2.05	91.54	10.55	20.77
C-C-M-M-M	NO TILL	.67	84.54	11.93	13.77
C-C-SB-W-M-M	NO TILL	.88	81.34	11.72	10.56
C-SB-WX	NO TILL	1.17	78.64	11.43	7.86
C-C-C-M-M-M	CHISEL DISC	2.05	78.10	10.55	7.32
C-SB-C-SB-WX	CHISEL DISC	4.10	77.27	8.50	6.50
C-C-M-M-M	CHISEL DISC	1.76	73.21	10.84	2.43
C-C-SB-W-M-M	CHISEL DISC	3.22	70.67	9.38	- .11
C-SB-WX	CHISEL DISC	4.98	66.75	7.62	- 4.03
C-C-C-M-M-M	FALL PLOW	4.40	65.59	8.21	- 5.19
C-C-C-M-M-M	SPRING PLOW	3.81	65.59	8.79	- 5.19
C-C-M-M-M	FALL PLOW	2.93	63.20	9.67	- 7.58
C-C-M-M-M	SPRING PLOW	2.34	63.20	10.26	- 7.58
C-C-SB-W-M-M	FALL PLOW	4.98	59.07	7.62	-11.71
C-C-SB-W-M-M	SPRING PLOW	4.10	59.07	8.50	-11.71

SOIL MANAGEMENT ALTERNATIVES FOR EROSION CONTROL
Fairfield County, Ohio - 1982

SOIL = KENDALLVILLE SILT LOAM
R = 150 K = .37

SLOPE = B 2 to 6
L = 150 S = 4.0

Soil Symbol KcB1
T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-SB-SB	NO TILL	3.65	99.02	7.56	34.60
SB-SB-SB	NO TILL	5.22	90.91	6.00	26.49
C-C-C	CHISEL DISC	3.13	86.43	8.09	22.01
C-C-SB	CHISEL DISC	4.43	85.47	6.78	21.05
C-SB	CHISEL DISC	5.74	85.00	5.48	20.58
C-SB-SB	CHISEL DISC	6.78	84.52	4.43	20.10
SB-SB-SB	CHISEL DISC	8.87	83.56	2.35	19.14
C-C-C-M-M-M	FALL PLOW	3.91	79.07	7.30	14.65
C-C-C-M-M-M	SPRING PLOW	3.39	79.07	7.83	14.65
C-SB-C-SB-WX	CHISEL DISC	3.65	69.49	7.56	5.07
C-C-SB-W-M-M	FALL PLOW	4.43	66.95	6.78	2.53
C-C-SB-W-M-M	SPRING PLOW	3.65	66.95	7.56	2.53
C-C-C	FALL PLOW	10.43	64.81	.78	.39
C-C-C	SPRING PLOW	9.39	64.81	1.83	.39
C-C-SB	FALL PLOW	10.96	64.55	.26	.13
C-C-SB	SPRING PLOW	9.65	64.55	1.57	.13
*C-SB	FALL PLOW	11.22	64.42	0.00	0.00
C-SB	SPRING PLOW	9.91	64.42	1.30	0.00
C-SB-SB	FALL PLOW	11.48	64.29	-.26	-.13
C-SB-SB	SPRING PLOW	10.17	64.29	1.04	-.13
SB-SB-SB	FALL PLOW	11.74	64.03	-.52	-.39
SB-SB-SB	SPRING PLOW	10.69	64.03	.52	-.39
C-SB-WX	CHISEL DISC	4.43	59.16	6.78	- 5.26
C-SB-C-SB-WX	FALL PLOW	8.87	53.03	2.35	-11.39
C-SB-C-SB-WX	SPRING PLOW	7.83	53.03	3.39	-11.39
C-SB-WX	FALL PLOW	7.04	45.44	4.17	-18.98
C-SB-WX	SPRING PLOW	6.00	45.44	5.22	-18.98
UNDER T					

C-C-C	NO TILL	.78	115.24	10.43	50.82
C-C-SB	NO TILL	1.57	107.13	9.65	42.71
C-C-C-M-M-M	NO TILL	.68	104.28	10.54	39.86
C-SB	NO TILL	2.09	103.08	9.13	38.66
C-C-M-M-M	NO TILL	.60	102.09	10.62	37.67
C-C-M-M-M	CHISEL DISC	1.57	90.56	9.65	26.14
C-C-C-M-M-M	CHISEL DISC	1.83	89.87	9.39	25.46
C-C-SB-W-M-M	NO TILL	.78	88.24	10.43	23.82
C-SB-C-SB-WX	NO TILL	1.83	83.96	9.39	19.54
C-C-M-M-M	FALL PLOW	2.61	81.92	8.61	17.50
C-C-M-M-M	SPRING PLOW	2.09	81.92	9.13	17.50
C-C-SB-W-M-M	CHISEL DISC	2.87	77.41	8.35	12.99
C-SB-WX	NO TILL	1.04	71.21	10.17	6.79

SOIL MANAGEMENT ALTERNATIVES FOR EROSION CONTROL
Fairfield County, Ohio - 1982

SOIL = KENDALLVILLE SILT LOAM
R = 150 K = .37

SLOPE = C
L = 145

6 to 12
S = 8.0

Soil Symbol KcC2
T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-SB	NO TILL	3.98	86.46	24.52	39.09
C-C-C	CHISEL DISC	7.95	80.57	20.54	33.20
C-SB	NO TILL	5.30	79.41	23.19	32.03
C-C-C-M-M-M	CHISEL DISC	4.64	75.61	23.86	28.24
C-C-M-M-M	CHISEL DISC	3.98	74.62	24.52	27.24
C-SB-SB	NO TILL	9.28	72.35	19.22	24.97
C-C-SB	CHISEL DISC	11.27	70.67	17.23	23.30
C-C-M-M-M	FALL PLOW	6.63	65.97	21.87	18.59
C-C-M-M-M	SPRING PLOW	5.30	65.97	23.19	18.59
C-SB	CHISEL DISC	14.58	65.73	13.92	18.35
C-C-C-M-M-M	FALL PLOW	9.94	64.79	18.55	17.42
C-C-C-M-M-M	SPRING PLOW	8.61	64.79	19.88	17.42
C-SB-C-SB-WX	NO TILL	4.64	63.25	23.86	15.88
C-C-SB-W-M-M	CHISEL DISC	7.29	60.98	21.21	13.60
C-SB-SB	CHISEL DISC	17.23	60.78	11.27	13.40
C-C-C	FALL PLOW	26.51	58.94	1.99	11.57
C-C-C	SPRING PLOW	23.86	58.94	4.64	11.57
SB-SB-SB	NO TILL	13.25	58.23	15.24	10.86
C-SB-C-SB-WX	CHISEL DISC	9.28	52.31	19.22	4.93
C-C-SB-W-M-M	FALL PLOW	11.27	51.26	17.23	3.88
C-C-SB-W-M-M	SPRING PLOW	9.28	51.26	19.22	3.88
C-C-SB	FALL PLOW	27.83	51.23	.66	3.85
C-C-SB	SPRING PLOW	24.52	51.23	3.98	3.85
SB-SB-SB	CHISEL DISC	22.53	50.88	5.96	3.51
*C-SB	FALL PLOW	28.49	47.38	0.00	0.00
C-SB	SPRING PLOW	25.18	47.38	3.31	0.00
C-SB-SB	FALL PLOW	29.16	43.52	-.66	- 3.85
C-SB-SB	SPRING PLOW	25.84	43.52	2.65	- 3.85
C-SB-WX	CHISEL DISC	11.27	43.36	17.23	- 4.01
C-SB-C-SB-WX	FALL PLOW	22.53	37.63	5.96	- 9.73
C-SB-C-SB-WX	SPRING PLOW	19.88	37.63	8.61	- 9.75
SB-SB-SB	FALL PLOW	29.82	35.81	-1.33	-11.57
SB-SB-SB	SPRING PLOW	27.17	35.81	1.33	-11.57
C-SB-WX	FALL PLOW	17.89	31.13	10.60	-16.25
C-SB-WX	SPRING PLOW	15.24	31.13	13.25	-16.25
UNDER T					

C-C-C	NO TILL	1.99	100.58	26.51	53.21
C-C-C-M-M-M	NO TILL	1.72	85.62	26.77	38.24
C-C-M-M-M	NO TILL	1.52	82.62	26.97	35.25
C-C-SB-W-M-M	NO TILL	1.99	68.87	26.51	21.50
C-SB-WX	NO TILL	2.65	52.48	25.84	5.11

SOIL MANAGEMENT ALTERNATIVES FOR EROSION CONTROL
Fairfield County, Ohio - 1982

SOIL = LOUDONVILLE SILT LOAM SLOPE = C 6 to 12 Soil Symbol LcC1
R = 150 K = .32 L = 200 S = 9.0 T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-SB	NO TILL	4.78	73.57	29.46	47.44
C-C-C	CHISEL DISC	9.56	69.32	24.69	43.19
C-SB	NO TILL	6.37	66.66	27.87	40.53
C-SB-SB	NO TILL	11.15	59.75	23.09	33.62
C-C-SB	CHISEL DISC	13.54	59.07	20.70	32.94
C-SB	CHISEL DISC	17.52	53.95	16.72	27.81
C-SB-C-SB-WX	NO TILL	5.57	53.94	28.67	27.81
C-C-C-M-M-M	CHISEL DISC	5.57	50.16	28.67	24.02
C-SB-SB	CHISEL DISC	20.70	48.82	13.54	22.69
C-C-C	FALL PLOW	31.85	47.22	2.39	21.09
C-C-C	SPRING PLOW	28.67	47.22	5.57	21.09
C-C-M-M-M	CHISEL DISC	4.78	46.32	29.46	20.19
SB-SB-SB	NO TILL	15.93	45.93	18.32	19.80
C-SB-C-SB-WX	CHISEL DISC	11.15	43.77	23.09	17.63
C-C-SB-W-M-M	CHISEL DISC	8.76	42.70	25.48	16.56
C-C-SB	SPRING PLOW	29.46	39.32	4.78	13.18
C-C-C-M-M-M	FALL PLOW	11.94	39.11	22.30	12.97
C-C-C-M-M-M	SPRING PLOW	10.35	39.11	23.89	12.97
SB-SB-SB	CHISEL DISC	27.07	38.57	7.17	12.44
C-C-M-M-M	FALL PLOW	7.96	37.48	26.28	11.35
C-C-M-M-M	SPRING PLOW	6.37	37.48	27.87	11.35
C-SB-WX	CHISEL DISC	13.54	36.98	20.70	10.85
C-SB	SPRING PLOW	30.26	35.37	3.98	9.23
C-C-SB	FALL PLOW	33.45	33.16	.80	7.03
C-C-SB-W-M-M	SPRING PLOW	11.15	32.82	23.09	6.68
C-SB-SB	SPRING PLOW	31.06	31.41	3.19	5.28
C-C-SB-W-M-M	FALL PLOW	13.54	29.74	20.70	3.61
C-SB-C-SB-WX	SPRING PLOW	23.89	28.90	10.35	2.77
*C-SB	FALL PLOW	34.24	26.14	0.00	0.00
C-SB-WX	SPRING PLOW	18.32	24.60	15.93	- 1.54
SB-SB-SB	SPRING PLOW	32.65	23.51	1.59	- 2.63
C-SB-C-SB-WX	FALL PLOW	27.07	21.52	7.17	- 4.62
C-SB-SB	FALL PLOW	35.04	19.11	-.80	- 7.03
C-SB-WX	FALL PLOW	21.50	18.44	12.74	- 7.69
SB-SB-SB	FALL PLOW	35.83	5.05	-1.59	-21.09
UNDER T					

C-C-C	NO TILL	2.39	87.39	31.85	61.26
C-C-C-M-M-M	NO TILL	2.07	59.19	32.17	33.06
C-C-M-M-M	NO TILL	1.83	53.55	32.41	27.42
C-C-SB-W-M-M	NO TILL	2.39	49.95	31.85	23.81
C-SB-WX	NO TILL	3.19	45.46	31.06	19.33

SOIL MANAGEMENT ALTERNATIVES FOR EROSION CONTROL
Fairfield County, Ohio - 1982

SOIL = LOUDONVILLE SILT LOAM

R = 150

K = .32

SLOPE = 0 12 to 18

L = 150

S = 14.0

Soil Symbol LcD1

T = 4.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-C	NO TILL	4.05	80.54	53.95	58.07
C-C-SB	NO TILL	8.09	69.00	49.91	46.53
C-SB	NO TILL	10.79	63.24	47.21	40.76
C-C-C	CHISEL DISC	16.19	61.99	41.81	39.52
C-SB-SB	NO TILL	18.88	57.47	39.12	35.00
C-C-SB	CHISEL DISC	22.93	54.18	35.07	31.71
C-SB-C-SB-WX	NO TILL	9.44	51.20	48.56	28.73
C-SB	CHISEL DISC	29.67	50.28	28.32	27.81
C-C-SB-W-M-M	NO TILL	4.05	47.66	53.95	25.19
C-C-C-M-M-M	CHISEL DISC	9.44	46.49	48.56	24.02
C-SB-SB	CHISEL DISC	35.07	46.38	22.93	23.91
SB-SB-SB	NO TILL	26.98	45.93	31.02	23.46
C-C-M-M-M	CHISEL DISC	8.09	43.39	49.91	20.92
C-SB-WX	NO TILL	5.40	43.18	52.60	20.71
C-SB-C-SB-WX	CHISEL DISC	18.88	40.84	39.12	18.37
C-C-SB-W-M-M	CHISEL DISC	14.84	40.25	43.16	17.78
C-C-C	FALL PLOW	53.95	39.89	4.05	17.42
C-C-C	SPRING PLOW	48.56	39.89	9.44	17.42
SB-SB-SB	CHISEL DISC	45.86	38.57	12.14	16.10
C-C-C-M-M-M	FALL PLOW	20.23	35.44	37.77	12.97
C-C-C-M-M-M	SPRING PLOW	17.53	35.44	40.46	12.97
C-C-M-M-M	FALL PLOW	13.49	34.55	44.51	12.08
C-C-M-M-M	SPRING PLOW	10.79	34.55	47.21	12.08
C-SB-WX	CHISEL DISC	22.93	34.54	35.07	12.07
C-C-SB	SPRING PLOW	49.91	34.43	8.09	11.96
C-SB	SPRING PLOW	51.25	31.70	6.74	9.23
C-C-SB-W-M-M	SPRING PLOW	18.88	30.38	39.12	7.90
C-SB-SB	SPRING PLOW	52.60	28.97	5.40	6.50
C-C-SB	FALL PLOW	56.65	28.28	1.35	5.81
C-C-SB-W-M-M	FALL PLOW	22.93	27.30	35.07	4.83
C-SB-C-SB-WX	SPRING PLOW	40.46	25.97	17.53	3.50
SB-SB-SB	SPRING PLOW	55.30	23.51	2.70	1.04
*C-SB	FALL PLOW	58.00	22.47	0.00	0.00
C-SB-WX	SPRING PLOW	31.02	22.15	26.98	-.32
C-SB-C-SB-WX	FALL PLOW	45.86	18.59	12.14	- 3.88
C-SB-SB	FALL PLOW	59.35	16.66	-1.35	- 5.81
C-SB-WX	FALL PLOW	36.42	16.00	21.58	- 6.47
SB-SB-SB	FALL PLOW	60.70	5.05	-2.70	-17.42
UNDER T					

C-C-C-M-M-M	NO TILL	3.51	55.76	54.49	33.29
C-C-M-M-M	NO TILL	3.10	50.81	54.90	28.34

SOIL MANAGEMENT ALTERNATIVES FOR EROSION CONTROL
Fairfield County, Ohio - 1982

SOIL = MCGARY AND FITCHVILLE
R = 150 K = .43

SLOPE = A
L = 238

0 to 2
S = .8

Soil Symbol MgA1
T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
C-C-C	FALL PLOW	3.46	77.52	.26	6.75
C-C-C	SPRING PLOW	3.11	77.52	.61	6.75
C-C-SB	FALL PLOW	3.63	73.02	.09	2.25
C-C-SB	SPRING PLOW	3.20	73.02	.52	2.25
*C-SB	FALL PLOW	3.72	70.78	0.00	0.00
C-SB	SPRING PLOW	3.28	70.78	.43	0.00
C-SB-SB	FALL PLOW	3.80	68.53	-.09	- 2.25
C-SB-SB	SPRING PLOW	3.37	68.53	.35	- 2.25
SB-SB-SB	FALL PLOW	3.89	64.03	-.17	- 6.75
SB-SB-SB	SPRING PLOW	3.54	64.03	.17	- 6.75
UNDER T					
SB-SB-SB	CHISEL DISC	2.94	72.95	.78	2.17
C-SB-SB	CHISEL DISC	2.25	72.72	1.47	1.94
C-SB	CHISEL DISC	1.90	72.60	1.82	1.82
C-C-SB	CHISEL DISC	1.47	72.48	2.25	1.71
C-C-C	CHISEL DISC	1.04	72.25	2.68	1.48
C-SB-C-SB-WX	CHISEL DISC	1.21	60.02	2.51	-10.76
C-SB-C-SB-WX	FALL PLOW	2.94	58.56	.78	-12.22
C-SB-C-SB-WX	SPRING PLOW	2.59	58.56	1.12	-12.22
C-C-C-M-M-M	FALL PLOW	1.30	57.09	2.42	-13.69
C-C-C-M-M-M	SPRING PLOW	1.12	57.09	2.59	-13.69
C-C-C-M-M-M	CHISEL DISC	.61	54.46	3.11	-16.32
C-C-M-M-M	FALL PLOW	.86	53.00	2.85	-17.77
C-C-M-M-M	SPRING PLOW	.69	53.00	3.03	-17.77
C-C-SB-W-M-M	FALL PLOW	1.47	52.67	2.25	- 18.11
C-C-SB-W-M-M	SPRING PLOW	1.21	52.67	2.51	- 18.11
C-C-SB-W-M-M	CHISEL DISC	.95	52.40	2.77	- 18.38
C-SB-WX	CHISEL DISC	1.47	51.63	2.25	- 19.14
C-C-M-M-M	CHISEL DISC	.52	50.90	3.20	- 19.88
C-SB-WX	FALL PLOW	2.33	50.42	1.38	- 20.36
C-SB-WX	SPRING PLOW	1.99	50.42	1.73	- 20.36

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = MIAMIAN SILT LOAM
R = 150

K = .37

SLOPE = B
L = 158

2 to 6
S = 3.0

Soil Symbol MmB1
T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

SB-SB-SB	CHISEL DISC	6.21	83.56	1.64	15.72
C-C-C	FALL PLOW	7.30	71.65	.55	3.81
C-C-C	SPRING PLOW	6.57	71.65	1.28	3.81
C-C-SB	FALL PLOW	7.67	69.11	.18	1.27
C-C-SB	SPRING PLOW	6.76	69.11	1.10	1.27
*C-SB	FALL PLOW	7.85	67.84	0.00	0.00
C-SB	SPRING PLOW	6.94	67.84	.91	0.00
C-SB-SB	FALL PLOW	8.03	66.57	-.18	- 1.27
C-SB-SB	SPRING PLOW	7.12	66.57	.73	- 1.27
SB-SB-SB	FALL PLOW	8.22	64.03	-.37	- 3.81
SB-SB-SB	SPRING PLOW	7.49	64.03	.37	- 3.81
C-SB-C-SB-WX	FALL PLOW	6.21	57.54	1.64	-10.30
C-SB-C-SB-WX	SPRING PLOW	5.48	57.54	2.37	-10.30
UNDER T					

C-C-C	NO TILL	.55	125.49	7.30	57.65
C-C-SB	NO TILL	1.10	113.96	6.76	46.12
C-SB	NO TILL	1.46	108.20	6.39	40.36
C-SB-SB	NO TILL	2.56	102.44	5.30	34.60
C-C-C-M-M-M	NO TILL	.47	100.91	7.38	33.07
C-C-C	CHISEL DISC	2.19	96.69	5.66	28.85
C-C-M-M-M	NO TILL	.42	95.99	7.43	28.15
C-C-SB	CHISEL DISC	3.10	92.31	4.75	24.47
SB-SB-SB	NO TILL	3.65	90.91	4.20	23.07
C-SB	CHISEL DISC	4.02	90.12	3.83	22.29
C-SB-C-SB-WX	NO TILL	1.28	89.83	6.57	21.99
C-SB-SB	CHISEL DISC	4.75	87.94	3.10	20.10
C-C-SB-W-M-M	NO TILL	.55	87.47	7.30	19.63
C-C-C-M-M-M	CHISEL DISC	1.28	86.50	6.57	18.67
C-C-M-M-M	CHISEL DISC	1.10	84.47	6.76	16.63
C-SB-WX	NO TILL	.73	77.58	7.12	9.74
C-C-SB-W-M-M	CHISEL DISC	2.01	76.64	5.84	8.80
C-SB-C-SB-WX	CHISEL DISC	2.56	75.37	5.30	7.53
C-C-M-M-M	FALL PLOW	1.83	74.45	6.03	6.61
C-C-M-M-M	SPRING PLOW	1.46	74.45	6.39	6.61
C-C-C-M-M-M	FALL PLOW	2.74	73.99	5.11	6.15
C-C-C-M-M-M	SPRING PLOW	2.37	73.99	5.48	6.15
C-SB-WX	CHISEL DISC	3.10	65.53	4.75	- 2.31
C-C-SB-W-M-M	FALL PLOW	3.10	65.04	4.75	- 2.80
C-C-SB-W-M-M	SPRING PLOW	2.56	65.04	5.30	- 2.80
C-SB-WX	FALL PLOW	4.93	50.68	2.92	-17.16
C-SB-WX	SPRING PLOW	4.20	50.68	3.65	-17.16

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = MIAMIAN SILT LOAM

R = 150

K = .37

SLOPE = C

L = 176

6 to 12

S = 7.4

Soil Symbol MmC2

T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-SB	NO TILL	5.24	83.95	22.92	32.03
C-C-C	CHISEL DISC	7.86	83.50	20.30	31.58
C-SB-SB	NO TILL	9.17	77.43	18.99	25.51
C-C-SB	CHISEL DISC	11.13	74.68	17.03	22.75
C-SB	CHISEL DISC	14.41	70.27	13.75	18.34
C-SB-SB	CHISEL DISC	17.03	65.85	11.13	13.93
SB-SB-SB	NO TILL	13.10	64.39	15.06	12.47
C-C-C	FALL PLOW	26.20	61.88	1.96	9.95
C-C-C	SPRING PLOW	23.58	61.88	4.58	9.95
C-C-SB-W-M-M	CHISEL DISC	7.20	60.68	20.96	8.75
C-C-C-M-M-M	FALL PLOW	9.82	60.60	18.34	8.67
C-C-C-M-M-M	SPRING PLOW	8.51	60.60	19.65	8.67
C-C-M-M-M	FALL PLOW	6.55	60.34	21.61	8.42
C-C-M-M-M	SPRING PLOW	5.24	60.34	22.92	8.42
C-SB-C-SB-WX	CHISEL DISC	9.17	57.71	18.99	5.79
SB-SB-SB	CHISEL DISC	22.27	57.03	5.89	5.11
C-C-SB	FALL PLOW	27.51	55.24	.65	3.32
C-C-SB	SPRING PLOW	24.23	55.24	3.93	3.32
*C-SB	FALL PLOW	28.16	51.93	0.00	0.00
C-SB	SPRING PLOW	24.89	51.93	3.27	0.00
C-C-SB-W-M-M	FALL PLOW	11.13	50.96	17.03	- .96
C-C-SB-W-M-M	SPRING PLOW	9.17	50.96	18.99	- .96
C-SB-WX	CHISEL DISC	11.13	49.34	17.03	- 2.59
C-SB-SB	FALL PLOW	28.82	48.61	-.65	- 3.32
C-SB-SB	SPRING PLOW	25.54	48.61	2.62	- 3.32
C-SB-C-SB-WX	FALL PLOW	22.27	43.04	5.89	- 8.89
C-SB-C-SB-WX	SPRING PLOW	19.65	43.04	8.51	- 8.89
SB-SB-SB	FALL PLOW	29.47	41.97	-1.31	- 9.95
SB-SB-SB	SPRING PLOW	26.85	41.97	1.31	- 9.95
C-SB-WX	FALL PLOW	17.68	37.11	10.48	-14.81
C-SB-WX	SPRING PLOW	15.06	37.11	13.10	-14.81
UNDER T					

C-C-C	NO TILL	1.96	103.51	26.20	51.59
C-C-SB	NO TILL	3.93	90.47	24.23	38.55
C-C-C-M-M-M	NO TILL	1.70	81.42	26.46	29.49
C-C-M-M-M	NO TILL	1.51	77.00	26.65	25.07
C-C-C-M-M-M	CHISEL DISC	4.58	71.41	23.58	19.49
C-C-M-M-M	CHISEL DISC	3.93	68.99	24.23	17.07
C-SB-C-SB-WX	NO TILL	4.58	68.66	23.58	16.73
C-C-SB-W-M-M	NO TILL	1.96	68.58	26.20	16.65
C-SB-WX	NO TILL	2.62	58.46	25.54	6.54

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = MIAMIAN SILT LOAM
R = 150

K = .37

SLOPE = D
L = 98

12 to 18
S = 15.6

Soil Symbol MmD2
T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					
C-C-SB	NO TILL	8.98	78.65	55.40	36.40
C-SB	NO TILL	11.98	73.54	52.41	31.30
C-C-C	CHISEL DISC	17.97	70.79	46.42	28.54
C-SB-SB	NO TILL	20.96	68.44	43.42	26.19
C-C-SB	CHISEL DISC	25.46	64.15	38.93	21.90
C-SB	CHISEL DISC	32.94	60.84	31.45	18.59
C-SB-C-SB-WX	NO TILL	10.48	59.45	53.91	17.20
C-C-C-M-M-M	CHISEL DISC	10.48	59.39	53.91	17.14
SB-SB-SB	NO TILL	29.95	58.23	34.44	15.98
C-SB-SB	CHISEL DISC	38.93	57.52	25.46	15.27
C-C-M-M-M	CHISEL DISC	8.98	57.11	55.40	14.86
C-C-SB-W-M-M	CHISEL DISC	16.47	50.90	47.92	8.65
SB-SB-SB	CHISEL DISC	50.91	50.88	13.48	8.63
C-SB-WX	NO TILL	5.99	50.05	58.40	7.80
C-SB-C-SB-WX	CHISEL DISC	20.96	49.28	43.42	7.03
C-C-C	FALL PLOW	59.90	48.69	4.49	6.44
C-C-C	SPRING PLOW	53.91	48.69	10.48	6.44
C-C-C-M-M-M	FALL PLOW	22.46	48.34	41.93	6.09
C-C-C-M-M-M	SPRING PLOW	19.47	48.34	44.92	6.09
C-C-M-M-M	FALL PLOW	14.97	48.27	49.41	6.02
C-C-M-M-M	SPRING PLOW	11.98	48.27	52.41	6.02
C-C-SB	FALL PLOW	62.89	44.40	1.50	2.15
C-C-SB	SPRING PLOW	55.40	44.40	8.98	2.15
*C-SB	FALL PLOW	64.39	42.25	0.00	0.00
C-SB	SPRING PLOW	56.90	42.25	7.49	0.00
C-SB-WX	CHISEL DISC	25.46	41.58	38.93	- .67
C-C-SB-W-M-M	FALL PLOW	25.46	41.03	38.93	- 1.23
C-C-SB-W-M-M	SPRING PLOW	20.96	41.03	43.42	- 1.23
C-SB-SB	FALL PLOW	65.89	40.10	-1.50	- 2.15
C-SB-SB	SPRING PLOW	58.40	40.10	5.99	- 2.15
SB-SB-SB	FALL PLOW	67.38	35.81	-2.99	- 6.44
SB-SB-SB	SPRING PLOW	61.39	35.81	2.99	- 6.44
C-SB-C-SB-WX	FALL PLOW	50.91	34.41	13.48	- 7.84
C-SB-C-SB-WX	SPRING PLOW	44.92	34.41	19.47	- 7.84
C-SB-WX	FALL PLOW	40.43	29.19	23.96	-13.06
C-SB-WX	SPRING PLOW	34.44	29.19	29.95	-13.06
UNDER T					
C-C-C	NO TILL	4.49	88.86	59.90	46.61
C-C-C-M-M-M	NO TILL	3.89	68.42	60.49	26.18
C-C-M-M-M	NO TILL	3.44	64.34	60.94	22.09
C-C-SB-W-M-M	NO TILL	4.49	58.15	59.90	15.90

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = MUSKINGUM SILT LOAM
R = 150 K = .28

SLOPE = D
L = 325

12 to 18
S = 16.0

Soil Symbol MuD1
T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-C	NO TILL	6.45	57.10	85.95	45.91
C-C-SB	NO TILL	12.89	45.17	79.50	33.98
C-C-C	CHISEL DISC	25.78	44.41	66.61	33.22
C-SB	NO TILL	17.19	39.21	75.21	28.02
C-C-SB	CHISEL DISC	36.53	34.26	55.87	23.07
C-SB-SB	NO TILL	30.08	33.25	62.31	22.06
C-C-C-M-M-M	NO TILL	5.59	31.58	86.81	20.39
C-SB-C-SB-WX	NO TILL	15.04	30.21	77.35	19.02
C-C-C	FALL PLOW	85.95	29.64	6.45	18.45
C-C-C	SPRING PLOW	77.35	29.64	15.04	18.45
C-SB	CHISEL DISC	47.27	29.19	45.12	18.00
C-C-M-M-M	NO TILL	4.94	26.47	87.45	15.28
C-C-SB-W-M-M	NO TILL	6.45	25.96	85.95	14.77
C-C-C-M-M-M	CHISEL DISC	15.04	25.23	77.35	14.04
C-SB-WX	NO TILL	8.59	24.21	83.80	13.02
C-SB-SB	CHISEL DISC	55.87	24.11	36.53	12.92
C-SB-C-SB-WX	CHISEL DISC	30.08	22.19	62.31	11.00
C-C-M-M-M	CHISEL DISC	12.89	21.39	79.50	10.20
SB-SB-SB	NO TILL	42.97	21.32	49.42	10.13
C-C-SB-W-M-M	CHISEL DISC	23.64	20.50	68.76	9.31
C-C-C-M-M-M	FALL PLOW	32.23	17.85	60.16	6.66
C-C-C-M-M-M	SPRING PLOW	27.93	17.85	64.46	6.66
C-SB-WX	CHISEL DISC	36.53	17.52	55.87	6.33
C-C-SB	FALL PLOW	90.25	17.34	2.15	6.15
C-C-SB	SPRING PLOW	79.50	17.34	12.89	6.15
C-C-M-M-M	FALL PLOW	21.49	15.49	70.91	4.30
C-C-M-M-M	SPRING PLOW	17.19	15.49	75.21	4.30
SB-SB-SB	CHISEL DISC	73.06	13.96	19.34	2.77
C-C-SB-W-M-M	FALL PLOW	36.53	12.04	55.87	.85
C-C-SB-W-M-M	SPRING PLOW	30.08	12.04	62.31	.85
*C-SB	FALL PLOW	92.39	11.19	0.00	0.00
C-SB	SPRING PLOW	81.65	11.19	10.74	0.00
C-SB-C-SB-WX	FALL PLOW	73.06	7.79	19.34	- 3.40
C-SB-C-SB-WX	SPRING PLOW	64.46	7.79	27.93	- 3.40
C-SB-WX	FALL PLOW	58.02	5.53	34.38	- 5.66
C-SB-WX	SPRING PLOW	49.42	5.53	42.97	- 5.66
C-SB-SB	FALL PLOW	94.54	5.04	-2.15	- 6.15
C-SB-SB	SPRING PLOW	83.80	5.04	8.59	- 6.15
SB-SB-SB	FALL PLOW	96.69	-7.26	-4.30	-18.45
SB-SB-SB	SPRING PLOW	88.10	-7.26	4.30	-18.45

UNDER T

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = MUSKINGUM SANDY LOAM
R = 150 K = .28

SLOPE = D
L = 325

12 to 18
S = 16.0

Soil Symbol MtD1
T = 3.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET P PER ACRE
OVER T					
C-C-C	NO TILL	6.45	49.44	85.95	42.76
C-C-SB	NO TILL	12.89	40.07	79.50	33.38
C-C-C	CHISEL DISC	25.78	36.75	66.61	30.07
C-SB	NO TILL	17.19	35.38	75.21	28.70
C-SB-SB	NO TILL	30.08	30.69	62.31	24.01
C-C-SB	CHISEL DISC	36.53	29.15	55.87	22.47
C-SB-C-SB-WX	NO TILL	15.04	25.82	77.35	19.13
C-SB	CHISEL DISC	47.27	25.36	45.12	18.67
C-C-C-M-M-M	NO TILL	5.59	24.63	86.81	17.95
C-SB-SB	CHISEL DISC	55.87	21.56	36.53	14.87
SB-SB-SB	NO TILL	42.97	21.32	49.42	14.64
C-C-C	FALL PLOW	85.95	20.63	6.45	13.95
C-C-C	SPRING PLOW	77.35	20.63	15.04	13.95
C-C-SB-W-M-M	NO TILL	6.45	20.22	85.95	13.54
C-C-M-M-M	NO TILL	4.94	19.67	87.45	12.98
C-SB-WX	NO TILL	8.59	19.44	83.80	12.76
C-C-C-M-M-M	CHISEL DISC	15.04	18.29	77.35	11.60
C-SB-C-SB-WX	CHISEL DISC	30.08	17.80	62.31	11.11
C-C-SB-W-M-M	CHISEL DISC	23.64	14.76	68.76	8.08
C-C-M-M-M	CHISEL DISC	12.89	14.59	79.50	7.91
SB-SB-SB	CHISEL DISC	73.06	13.96	19.34	7.28
C-SB-WX	CHISEL DISC	36.53	12.76	55.87	6.07
C-C-SB	FALL PLOW	90.25	11.33	2.15	4.65
C-C-SB	SPRING PLOW	79.50	11.33	12.89	4.65
C-C-C-M-M-M	FALL PLOW	32.23	10.23	60.16	3.54
C-C-C-M-M-M	SPRING PLOW	27.93	10.23	64.46	3.54
C-C-M-M-M	FALL PLOW	21.49	8.14	70.91	1.46
C-C-M-M-M	SPRING PLOW	17.19	8.14	75.21	1.46
*C-SB	FALL PLOW	92.39	6.69	0.00	0.00
C-SB	SPRING PLOW	81.65	6.69	10.74	0.00
C-C-SB-W-M-M	FALL PLOW	36.53	5.85	55.87	- .83
C-C-SB-W-M-M	SPRING PLOW	30.08	5.85	62.31	- .83
C-SB-C-SB-WX	FALL PLOW	73.06	2.86	19.34	- 3.83
C-SB-C-SB-WX	SPRING PLOW	64.46	2.86	27.93	- 3.83
C-SB-SB	FALL PLOW	94.54	2.04	-2.15	- 4.65
C-SB-SB	SPRING PLOW	83.80	2.04	8.59	- 4.65
C-SB-WX	FALL PLOW	58.02	.31	34.38	- 6.38
C-SB-WX	SPRING PLOW	49.42	.31	42.97	- 6.38
SB-SB-SB	FALL PLOW	96.69	-7.26	-4.30	-13.95
SB-SB-SB	SPRING PLOW	88.10	-7.26	4.30	-13.95

UNDER T

SOIL MANAGEMENT ALTERNATIVES AND COMPARATIVE NET RETURNS
Fairfield County, Ohio - 1982

SOIL = PARKE SILT LOAM
R = 150

K = .37

SLOPE = C
L = 200

6 to 12
S = 9.0

Soil Symbol MtD1
T = 5.0

CROP MANAGEMENT ALTERNATIVES		MANAGEMENT ALTERNATIVES *COMPARED WITH C-SB FALL PLOW			
ROTATION	TILLAGE	SOIL LOSS T/A/YR.	NET RETURN PER ACRE	SOIL SAVED T/A/YR.	CHANGE IN NET RETURN PER ACRE
OVER T					

C-C-SB	NO TILL	5.52	102.06	34.07	33.76
C-SB	NO TILL	7.37	100.60	32.23	32.30
C-SB-SB	NO TILL	12.89	99.14	26.70	30.84
SB-SB-SB	NO TILL	18.41	96.22	21.18	27.92
SB-SB-SB	CHISEL DISC	31.31	88.86	8.29	20.56
C-SB-SB	CHISEL DISC	23.94	87.07	15.65	18.77
C-SB	CHISEL DISC	20.26	86.18	19.34	17.88
C-C-SB	CHISEL DISC	15.65	85.29	23.94	16.99
C-SB-C-SB-WX	NO TILL	6.45	83.75	33.15	15.45
C-C	CHISEL DISC	11.05	83.50	28.54	15.20
C-C-C-M-M-M	CHISEL DISC	6.45	79.91	33.15	11.61
C-M-M-M	CHISEL DISC	5.52	79.19	34.07	10.89
C-SB-W-M-M	CHISEL DISC	10.13	73.13	29.46	4.83
C-M-M-M	FALL PLOW	9.21	72.70	30.38	4.40
C-M-M-M	SPRING PLOW	7.37	72.70	32.23	4.40
C-SB-C-SB-WX	CHISEL DISC	12.89	72.21	26.70	3.91
C-C-M-M-M	FALL PLOW	13.81	71.79	25.78	3.49
C-C-M-M-M	SPRING PLOW	11.97	71.79	27.62	3.49
B-SB-SB	FALL PLOW	41.43	69.34	-1.84	1.04
B-SB-SB	SPRING PLOW	37.75	69.34	1.84	1.04
SB-SB	FALL PLOW	40.51	68.65	-.92	.35
SB-SB	SPRING PLOW	35.91	68.65	3.68	.35
C-SB	FALL PLOW	39.59	68.30	0.00	0.00
SB	SPRING PLOW	34.99	68.30	4.60	0.00
C-SB	FALL PLOW	38.67	67.95	.92	-.35
C-SB	SPRING PLOW	34.07	67.95	5.52	-.35
C-C	FALL PLOW	36.83	67.26	2.76	-1.04
C-C	SPRING PLOW	33.15	67.26	6.45	-1.04
C-SB-W-M-M	FALL PLOW	15.65	64.46	23.94	-3.84
C-SB-W-M-M	SPRING PLOW	12.89	64.46	26.70	-3.84
SB-WX	CHISEL DISC	15.65	62.90	23.94	-5.40
SB-C-SB-WX	FALL PLOW	31.31	57.91	8.29	-10.39
SB-C-SB-WX	SPRING PLOW	27.62	57.91	11.97	-10.39
SB-WX	FALL PLOW	24.86	50.98	14.73	-17.32
SB-WX	SPRING PLOW	21.18	50.98	18.41	-17.32
UNDER T					

C-C	NO TILL	2.76	104.98	36.83	36.68
C-C-M-M-M	NO TILL	2.39	90.65	37.20	22.35
C-M-M-M	NO TILL	2.12	87.78	37.47	19.48
C-SB-W-M-M	NO TILL	2.76	81.51	36.83	13.22
SB-WX	NO TILL	3.68	72.52	35.91	4.22

Pastureland

Approximately 10 percent of the land area in Fairfield County is used for pasture. Pasture plants commonly grown are red clover, alfalfa, bluegrass, ladino clover, orchardgrass, tall fescue, timothy and brome grass.

The ability of a pasture to produce forage and protect the soil from erosion is influenced by the soil type, plant species, the number of livestock, the length of time they graze, and fertility. Forage stands must contain adequate quantities of adapted species. Practices that contribute to good pasture management are rotation of pastures, deferred grazing, grazing in proper season to reduce compaction, weed control, fencing, brush management, and application of appropriate amounts of lime and fertilizer. Strategically located water supplies are also essential to proper pasture management.

The most widespread problem causing erosion on pastures in the county is overgrazing. Overgrazing usually occurs during July and August when the cool season grasses become dormant. Overgrazing not only causes additional erosion, but also reduces the stand of the more productive forage species. Overgrazing can be prevented by adjusting the number of livestock to the production potential of the pasture. This can be accomplished by using supplemental grazing, reducing the number of livestock, or increasing the productivity of the present pasture.

Erosion control is a major need because many of the soils used for pasture are steep and subject to erosion. Control of erosion is particularly important during seeding. Erosion can be effectively controlled at seeding time by the use of tillage operations that leave residue on the surface. No-till seedings with chemical weed control is a practice that can minimize soil erosion.

The need for lime and fertilizer should be determined by soil tests and amounts should be supplied to meet the desired production level of the forage to be grown.

With the application of good management practices forage yields can be increased. This will also increase carrying capacity and potential income from pastureland in the county.